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President's Report

by

Livingston Farrand

1928-29

With appendices containing a summary of
financial operations, and reports of
the Deans and other officers

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PRESIDENT'S REPORT

FOR 1928-29

To the Board of Trustees of Cornell University:

I have the honor to present the following report on the progress of the University during the academic year 1928-29.

The University has suffered serious loss by the death of the following distinguished figures.

Thomas B. Wilson, a Trustee of the University, died at his home in Hall, New York, on January 11, 1929. He was one of the first trustees appointed by the Governor of the State of New York under the Laws of 1909 and he served continuously from that year until his death.

Alvin C. Beal, Professor of Floriculture, died May 6, 1929. He came to Cornell as Assistant in Floriculture in 1910 and at the end of the year was promoted to an assistant professorship. In 1913 he was elected professor of Floriculture and held that position during the rest of his lifetime.

George R. Chamberlain, Assistant Professor of Freehand Drawing in the College of Architecture, died July 15, 1929. He was instructor in Drawing in the College of Engineering 1902–4 and in the College of Architecture 1906–15. In 1915 he was promoted to an assistant professorship and held that title until his death.

Hugh E. Morrow, Instructor in Chemistry in the Medical College in New York City, died June 16, 1929.

The Trustees

Professor Herman Diederichs was elected by the Faculty to succeed Professor V. A. Moore as Faculty Representative on the Board, effective January 1, 1929.

P. G. Ten Eyck was appointed by the Governor to fill the trusteeship rendered vacant by the death of T. B. Wilson, and G. R. Van Namee was appointed by the Governor to succeed himself on the expiration of his term in June 1929. D. P. Witter was elected President of the New York State Agricultural Society and so became a Trustee, succeeding E. R. Eastman. W. F. Pratt has been continued by the State Grange as its representative on the Board.

On June 17, 1929, C. W. Pound, H. W. Sackett, and W. C. Teagle were elected by the Board to succeed themselves as Trustees on the expirations of their terms at that time.

On June 15, 1929, the Alumni re-elected E. N. Sanderson a Trustee to succeed himself and elected J. W. Parker of the Class of 1908 to succeed R. H. Williams, the terms of Messrs. Sanderson and Williams expiring on Commencement Day, 1929.

J. F. Schoellkopf, Jr., was elected a member of the Finance Committee and F. E. Gannett and Bancroft Gherardi were elected members of the Committee on General Administration to fill existing vacancies.

F. E. Gannett was relieved of membership on the State College Council and Dr. Mary M. Crawford was appointed to fill the vacancy thus created.

The following were elected Faculty Representatives on the State College Council: Professor J. E. Rice by the Faculty of Agriculture; Professor Flora Rose by the Faculty of Home Economics; Professor G. S. Hopkins by the Faculty of Veterinary Medicine.

M. C. Taylor was elected a member of the Medical College Council to fill the vacancy caused by the death of I. A. Place.

The Faculty

The following appointments and promotions in the Faculty have been made during the past year:

Professor P. A. Fish, Dean of the New York State Veterinary College; Professor George Young, Jr., Dean of the College of Architecture; Dean A. R. Mann, Director of the Cornell University Agricultural Experiment Station; Willard Austen, Librarian, emeritus; H. J. Davenport, Professor of Economics, emeritus; G. R. McDermott, Professor of Structural Design, emeritus; V. A. Moore, Professor of Comparative Veterinary Pathology and Bacteriology and of Meat Inspection, and Dean of the New York State Veterinary College, emeritus; L. L. Van Slyke, Professor of Dairy Chemistry, emeritus; Annette J. Warner, Professor of Home Economics, emeritus; M. A. Copeland, Professor of Economics; H. W. Edgerton, Professor of Law; Emanuel Fritz, Acting Professor of Forestry; P. T. Homan, Professor of Economics; H. D. Laube, Professor of Law; F. B. Morrison, Professor of Animal Husbandry; Jacob Papish, Professor of Chemistry; J. P. Porter, Acting Professor of Ornamental

Horticulture; R. R. Rosborough, Acting Professor of Classics; D. F. Smiley, Professor of Hygiene and Medical Adviser; J. B. Sumner, Professor of Biochemistry; P. J. Weaver, Professor of Music; A. G. Widgery, Acting Professor of the Philosophy of Religion; F. R. Bamforth, Assistant Professor of Mathematics; H. A. Barton, Assistant Professor of Physics; H. W. Briggs, Assistant Professor of Government; L. A. Burckmyer, Assistant Professor of Electrical Engineering; H. P. Camden, Assistant Professor of Architecture; W. H. French, Assistant Professor of English; Alva Gwin, Assistant Professor of Hygiene and Assistant Medical Adviser of Women; F. F. Hill, Assistant Professor of Rural Economy; James Hutton, Assistant Professor of Classics; J. E. Knott, Research Assistant Professor in the Department of Vegetable Gardening; C. O. Mackey, Assistant Professor of Heat-Power Engineering; R. E. Montgomery, Acting Assistant Professor of Economics; A. G. Newhall, Research Assistant Professor of Plant Pathology; P. M. O'Leary, Assistant Professor of Economics; F. I. Righter, Acting Assistant Professor of Forest Management; E. M. Strong, Assistant Professor of Electrical Engineering; H. A. Verrall, Assistant Professor of Law; W. H. York, Assistant Professor of Hygiene and Assistant Medical Adviser.

In the Medical College in New York City the following have been appointed or promoted:

E. F. DuBois, Professor of Medicine; M. W. Raynor, Professor of Clinical Psychiatry; W. L. Russell, Professor of Psychiatry; Harry Gold, Assistant Professor of Pharmacology.

The following appointments have been made to the Extension Staff of the College of Agriculture:

C. L. Allen, Assistant Extension Professor of Animal Husbandry; S. J. Brownell, Assistant Extension Professor of Animal Husbandry; D. B. Bushey, Assistant Extension Professor of Ornamental Horticulture.

In the Agricultural Experiment Station in Geneva the following have been appointed:

U. P. Hedrick, Director; P. J. Parrott, Vice-Director; D. C. Carpenter, A. W. Clark, C. J. Hucker, M. T. Munn, and J. J. Willaman, Chiefs in Research (with the title of professor); D. M. Daniel, S. W. Harman, C. J. Henig, G. E. R. Hervey, J. G. Horsfall, B. R. Nebel, and C. S. Pederson, Associates in Research (with the title of assistant professor).

The following have presented their resignations:

V. A. Moore, Professor of Comparative Veterinary Pathology and Bacteriology and of Meat Inspection, and Dean of the New York State Veterinary College; F. B. Morrison, Director of the Agricultural Experiment Stations; Willard Austen, Librarian; H. J. Davenport, Professor of Economics; G. R. McDermott, Professor of Structural Engineering; W. V. Price, Professor of Dairy Industry; W. H. Schuchardt, Professor of Architecture; Annette J. Warner, Professor of Home Economics; Bruce Williams, Professor of Political Science; Elizabeth V. Lacey, Assistant Professor of Home Economics; T. J. McInerney, Assistant Professor of Dairy Industry; A. E. Murphy, Assistant Professor of Philosophy; W. R. Osgood, Assistant Professor of Civil Engineering; H. H. Race, Assistant Professor of Electrical Engineering; H. C. Bailey, Associate Professor of Obstetrics and Gynecology; L. L. VanSlyke, Chief in Research in the Experiment Station in Geneva (with the title of Professor); L. K. Jones, J. E. Mensching, and W. P. Wheeler, Associates in Research in the Experiment Station in Geneva (with the title of Assistant Professor); Marguerite Wilker, Extension Professor of Home Economics; Helen B. Kay, Assistant Extension Professor of Home Economics.

The Messenger Lectures on the Evolution of Civilization were delivered by Professor Edward L. Thorndike of Columbia University in 1928–29; and in 1929–30 the Messenger Lecturer will be Dean Roscoe Pound of the Harvard Law School.

Dr. George P. Thomson of the University of Aberdeen will hold the non-resident lectureship in chemistry on the George F. Baker Foundation during the first term of the academic year 1929–30 and Dr. K. Fajans of the University of Munich the second term.

The Students

The official enrollment of students for the year ending June 30, 1929, was 5651, as compared with 5671 for the previous year.

The University has maintained its policy of limitation of numbers and consequent rigid selection of candidates for admission, especially in the Colleges of Arts and Sciences, Medicine, and Architecture. The State College of Home Economics has also practically reached its limit of accommodations.

It is a satisfaction to report that the Office of the Director of Admissions has operated with complete success during the year and

has greatly facilitated the process of selection and admission as it presents itself to the different colleges of the University.

General good order has been observed throughout the year by the student body and there are no particular developments to report. The problem of adequate dormitory provision for men students remains unsolved and it is greatly to be hoped that additional units in the dormitory group may be forthcoming in the near future.

The educational problems of the constituent colleges are reviewed in the reports of the deans appended hereto and careful attention to the recommendations presented by those officers is urged.

Material Development

One of the most notable additions in recent years to the material equipment of the University is represented by the new women's dormitories to be known as Balch Halls for Women. Those buildings, comprising four self-contained units housing approximately seventy-five students each, are now practically completed and will be opened for occupancy at the beginning of the next academic year.

The very generous gift which made these buildings possible has enabled the University to take a long step forward in the direction of adequate housing and living conditions for its women undergraduates. Balch Halls will permit the vacating of the houses maintained off the campus as well as certain of the detached buildings previously occupied by women on East Avenue.

Another aspect of the housing problem which is pressing for solution is that of provision for graduate students and particularly those who are married. A study made by the Dean of the Graduate School and outlined in his report shows clearly the situation into which we have drifted and is commended to the attention of the Board.

The Plant Industry building, provision for which was made by the State Legislature, is in process of construction and is expected to be available for use in September 1930.

The ground has been broken and construction commenced on the beautiful War Memorial to be erected on West Avenue and made possible by generous subscriptions obtained through the energy of a committee of which Robert E. Treman, '09, is chairman. It is expected that this much desired memorial will be completed before the close of the next academic year. Another addition to the men's

dormitory group is represented by Boldt Tower, now under construction and made possible by the generous gift of Mrs. Clover Boldt Johaneson, previously noted in these reports.

The new Filtration Plant is also approaching completion and the University is under particular obligation in this development to Trustee Ezra B. Whitman, '01, who has given unsparingly of his time and expert knowledge, entirely without charge to his Alma Mater.

The landscape work on the campus and in the adjacent gorges has continued with vigor under the provisions of the gift of Colonel Henry W. Sackett. The results of this work are already strikingly apparent.

It is a satisfaction to report that the plans for the development of the plant and organization of the New York Hospital-Cornell Medical College Association are proceeding vigorously and without interruption. Ground has been broken for the great group of buildings to be erected in New York City on the plot lying between 68th and 70th Streets and York Avenue and the East River. It is expected that the plant will be completed and in full operation in September 1932.

The most important gift reported during the year just passed is the magnificent offer of $1,500,000 by Mr. Myron C. Taylor, a graduate of the class of 1894 and a Trustee of the University, to provide adequate buildings and equipment for the Law School. The generous and far-reaching terms of Mr. Taylor's gift have been noted by the Board and assure the rapid development of that important School. It would be impossible to overestimate the significance of this gift in placing another professional department of the University in a position which can successfully challenge comparison with the best equipments in the country.

I have in previous reports repeatedly called attention to the lamentable conditions obtaining in the University Library and the College of Engineering. In the case of the Library, the housing provision for books has become totally inadequate and the maintenance funds have remained without increase for many years. The College of Engineering has similarly held its quality against the handicap of obsolete buildings and equipment and the attention of the Trustees to these needs is earnestly requested.

The plans for buildings to accommodate the departments concerned with Fine Arts are developing rapidly, although the funds for

their construction have not been forthcoming. I need not repeat that the pressing need for this provision increases year by year.

Attention has repeatedly been called to the disturbing absence of gymnasium facilities and I must add at this time the rapidly developing demand for new quarters for the Departments of Geology and Zoology, now inadequately housed in McGraw Hall, and for some more favorable provision for the important work of the Department of Health which is being conducted with distinction by the group of physicians under the direction of Dr. D. F. Smiley.

I am glad to report to the Board that the Radio Broadcasting Station, very generously provided by gifts from the General Electric Company and the Westinghouse Electric and Manufacturing Company, is approaching completion and is expected to be in operation during the coming year. This will greatly strengthen the extension work of the State Colleges and is expected to develop into an agency of importance in distributing to the public carefully prepared information from the various departments of the University.

May I once more call the attention of the Board to what many regard as our chief need, and that is the establishment of adequate retiring allowances for the University staff. Some encouragement has appeared as to obtaining the necessary means for the purpose and I urge that every effort be made by the Board to complete the fund.

The Cornellian Council has continued its invaluable work with unabated vigor. The response of the alumni to the presentations made through the Council is inspiriting and stands as a model of loyalty and support among American institutions.

I wish again to express my very deep appreciation of the cordial support and cooperation given to the administration by every constituent group of the University. To work in the atmosphere of Cornell is an inspiration and a privilege.

Respectfully submitted,
LIVINGSTON FARRAND,
President.

SUMMARY OF FINANCIAL OPERATIONS

To the President of the University:

I have the honor to submit herewith the financial statement of Cornell University covering the fiscal year from July 1, 1928, to June 30, 1929, inclusive.

Income and Expense

The great opportunities open to the University for the work of instruction and research, and the improvements necessary to maintain the physical plant abreast of modern educational needs, steadily increase. The past few years have been a period of great internal development in order better to care for the education and environment of the student body, and more properly to support and provide adequate facilities for the instructing and research staffs. Experience has shown the need of securing certain properties adjoining the University to provide for the demands of the future. Expenditures for development and new facilities often make necessary increased expenses in other lines. All of this increases the need of funds for current expenses, and the difficulty of keeping the disbursements within the income.

The cost of conducting the endowed colleges at Ithaca during the year exceeded the available income by $91,090.85. This amount was offset by an appropriation from profits received on securities sold during the year of $92,208.55, leaving the accumulated debit balance of income on July 1, 1929, at $233,707.29. In addition, the University is carrying in an undistributed purchase and construction account, items aggregating $410,660.43. These funds are for the purchase of property for future needs, or expenditures in anticipation of future buildings. A corporation such as the University has no capital stock and therefore has no way of financing capital additions, such as the above additions to its physical plant, except from gifts or its current income.

In the Medical College in New York City, through the receipt of accumulated income from the estate of the late Mr. Payne Whitney, expenses were met in full and the accumulated deficit of former years reduced to $39,250.64.

The expenses of the State Colleges at the University in excess of certain income available from University and Federal funds are met from appropriations made by the State of New York. The total disbursements of the State Veterinary College for the year were $192,706.56; of the State College of Agriculture, including $152,512.15 for new construction, $2,089,403.35; of the State College of Home Economics, $502,840.32; and of the State Experiment Station at Geneva, $331,007.34.

Semi-Centennial Endowment Fund

The subscriptions (exclusive of gifts for special purposes, such as buildings which, under the resolution of the Board of Trustees, form part of the Semi-Centennial Endowment Fund) secured by the Semi-Centennial Endowment Committee aggregate ..... $6,654,278.21.

From this amount there has been charged off as uncollectible:

By the Treasurer	$ 89,371.87	
By the Cornellian Council (Classes 1920–23)	107,005.04	196,376.91
Leaving the net subscriptions July 1, 1929		6,457,901.30
Of these there have been collected		4,115,729.41
Leaving the balance uncollected July 1, 1929		$2,342,171.89

Of these uncollected subscriptions $804,310.04 are from the Classes of 1920–23 inclusive, payable through the Cornellian Council and not yet due; $1,226,735.13 are payable at the convenience of the donor; and $60,460.69 are payable at definite dates which have not yet been reached. This leaves a balance of only $250,666.03 of subscriptions which, by their terms, have matured but have not yet been paid.

During the year, in addition to $5,182.30 paid through the Cornellian Council, there was paid into the University on account of the principal of subscriptions $73,668.94. Of this amount, $27,367.68 was paid on account of principal maturing prior to the beginning of the year; $16,912.95 on principal maturing during the year; and $29,388.31 on account of subscriptions not yet matured or payable at convenience. Interest amounting to $35,575.24 was collected. Twelve extensions of time of payment were granted, and eighty subscriptions were paid in full.

Gifts

Donations to the University which passed through the books of this office during the year aggregated $4,427,472.58. Undoubtedly some gifts were made directly to departments and were not reported.

The Cornellian Council continued its successful work in collecting money for the needs of the University and it paid over the sum of $873,399.36 as compared with $532,008.25 in the previous year. The amount received for unrestricted use for current expenses was $119,045.69. Donations other than those received through the Cornellian Council, and as a result of the Semi-Centennial Endowment Campaign, aggregated $3,449,646.74.

The gifts exceeding $100,000 included an anonymous gift of $300,000 for the furnishing of the women's new residential halls, $500,000 from Mr. Myron C. Taylor on account of his gift for the construction of the new building for the Law School, $120,000 from the trustees of Mr. Payne Whitney's estate for the current expenses of the Medical College and representing accrued income, and $2,666,311.41 from the Payne Whitney estate on account of the bequest for the benefit of the Medical College.

Mr. Ezra B. Whitman of the Class of 1901, with his firm, Messrs. Whitman, Requardt & Smith, made a valuable donation to the University of their services in designing and superintending construction of the new water system and filtration plant.

The University Endowment

The permanent endowment or income producing funds of the University aggregate $22,998,528.17, of which $15,879,699.97 are for the benefit of the University at Ithaca and $7,118,828.20 for the Medical College in New York City.

The investment of these funds so as to produce the highest rate of interest compatible with safety is one of the important duties of the Trustees, and the Finance Committee, to which this duty is entrusted, has been remarkably successful. Where securities are given to the University for the benefit of specific funds they are held as constituting the investment of such fund. Except where special restrictions require that the principal and interest on gifts to the University be kept separate from other funds, all investments are regarded as made for the University as a whole, and the annual income arising from such in-

vestments, after the deduction of two per cent of the income as an insurance reserve against losses, is distributed pro rata among the several specific funds held by, and being the property of the University. Early in the history of the University the Trustees decided that in the investment of University funds the committee should not be confined to so-called trust fund investments, but that its members should use their best judgment. Realizing that losses would occasionally occur, provision was made for an insurance reserve fund, above mentioned, and this fund, with the occasional use of a portion of the profits realized from bonds sold, has been more than adequate to care for the losses incurred. The endowment funds thus constitute an investment trust. The securities purchased are distributed over a wide range of industries and organizations. The usual investment in one issue is from $50,000 to $100,000, which equals only one-fourth or one-half of one per cent of the entire funds.

The average rate of return received upon investments during the year and credited to the several funds was 5.4975%. The market valuation of the securities at the close of the fiscal year, excluding gifts, exceeded the book value, which is usually the cost value or the market value on April 1, 1923, when our present system was installed, by over $1,300,000. During the year the University realized a profit of $175,000 from securities paid or sold, of which $120,000 was applied to meet deficits of income, and the balance was carried to the insurance reserve account.

Loan Funds

Although the University found it necessary to raise the tuition rate for 1929–30 to $400 in the Colleges of Arts and Sciences, Engineering, and Architecture, probably sufficient financial assistance will be available to students because of the number and size of the student aid funds that have been established. There are at Cornell twenty-seven such funds at present, comprising ten restricted loan funds, eight revolving loan funds, and nine grant funds.

On June 30, 1929, the principal of the loan funds totaled $582,623.50, and that of the grant funds $28,592.06, making a total of $611,215.56 permanently invested for the benefit of needy students. For the year 1928–29 there was available for loans $64,610.22, and available for grants $10,805.40. Of these sums $45,498.08 was loaned and $6,984.55 given in grants. Outstanding among the loan funds is the Guiteau Fund, the principal of which is already over half a million dollars, and which is growing at the rate of $20,000 per year at present, indicating that the principal will in time be very substantial.

During the past year a special survey was made of the loan funds for the purpose of obtaining information that would help in administering the funds in the future. Some of the interesting facts discovered were, that of the students who paid their notes, 77.4% were unable to meet the obligation at maturity; that the average student borrowed $162 and required three and one-half years to pay up the debt; that of the delinquent students, the average man borrowed $200.34 and paid back $38.87. Of $164,964.09 Guiteau notes outstanding on June 30, 1928, it was found that 74.8% were overdue. This is not as discouraging as it looks, however, as it was also found that eventually a fair percentage settle their accounts. We are, however, placing additional emphasis on collections in order to build up the funds to a point where the income will be sufficient to take care of the growing demand for loans.

The Physical Plant

A large amount of construction has been going on upon the campus. Work has progressed rapidly upon the new halls for women and it is expected that they will be ready for occupancy with the opening of the University this fall. They will accommodate 318 students. The War Memorial group of men's residential halls, with the Cloister, as well as Boldt Tower, will probably be completed before winter. The construction by the State of the Plant Industry building has gone steadily on, but this building will not be ready for use before the fall of 1930. During the year the new filtration plant and water storage system has been completed. It was put in operation on February 19, 1929. These new buildings will tax the capacity of our central heating plant, and additional construction will render an enlargement of the plant necessary.

Due largely to the interest of Trustee Robert H. Treman, greater attention has been paid to landscape work upon the campus and in the gorges adjacent to it. Generous gifts from Trustees Sackett, Ickelheimer, Cooke, Sanderson, and Upson have made possible many improvements which the limited funds at the disposal of the Trustees did not permit. The dredging of Beebe Lake was begun, but little work was possible, as the dry season made it necessary to discontinue operations until a period of more abundant water. With the continued and rapid growth of the physical plant the regular maintenance needs steadily increase. More funds for the repair and upkeep of the buildings are needed.

The Purchasing Department of the University continues to grow in effectiveness and usefulness. A decided advantage is that the members of its staff have become familiar with the needs of departments and the sources of supply, so that their advice is increasingly sought by the departmental staffs. Requests for information and advice nearly doubled those made during the preceding year.

Residential Halls

The facilities for dormitories and dining rooms continue to increase. During the year 1013 students were accommodated in University buildings, and 591,545 meals were served in the residential halls dining rooms, and in the Drill Hall. This figure does not include service in Willard Straight Hall, nor in the Home Economics cafeteria. The average cost per meal was $.4523 which slightly exceeded the amount received. An analysis of the costs shows that while there was a slight increase in the cost of preparation and service of food, there was a considerable increase in the cost of raw food, and in the replacement of equipment.

Forest Park, the former home of Mr. Franklin C. Cornell, adjoining the site of the residential halls for men, was purchased by the University at the beginning of the year, and the house was arranged for the accommodation of students, and has been occupied by a group of fourth and fifth year men in the College of Architecture. This is our first experience in grouping students pursuing the same line of study, and we have had the active cooperation of the Faculty of Architecture in the project. As Architecture is a five-year course, it offers a unique opportunity to house together the men in their last years of study. The experiment is being carefully watched and, if successful, may lead to similar housing of other groups.

The educational organizations are finding Cornell a desirable place for their conventions. These usually occur during the summer vacation. They are a financial advantage to the University in that they help to carry the organization expenses during the slack season. During the year the following were held at Cornell: Fourth International Entomological Congress; Biennial Conference of the Executives of the Boy Scouts of America; the annual meeting of the Southern District of the New York State Teachers Association; the meeting of the American Iris Society; the meeting of the State Publishers Association; and the national convention of the Alpha Omicron Pi sorority.

The routine work of the service departments of the University was efficiently done, and is covered in detail in the reports of the Treasurer, the Superintendent of Buildings and Grounds, the Manager of Purchases, and the Manager of Residential Halls.

Respectfully submitted
CHARLES D. BOSTWICK,
Comptroller.

NOTE: The complete report of the Comptroller and the Treasurer, bearing the certificate of audit of Messrs. Haskins & Sells, certified public accountants, 37 West Thirty-ninth Street, New York City, together with the reports of the Superintendent of Buildings and Grounds, the Manager of Purchases, and the Manager of Residential Halls, will be forwarded to the members of the Faculty and Alumni upon receipt of specific request addressed to the Secretary of Cornell University, Ithaca, New York.

APPENDIX I

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

SIR: I have the honor to submit the following report of the University Faculty for the year 1928–29:

CHANGES IN THE FACULTY'S MEMBERSHIP

During the past year the Faculty lost two members by death and five members by retirement from active service. Professor John George Pertsch on August 23, 1928 saved from drowning a person struggling in the rough waters of Cayuga Lake and in his courageous and generous act lost his own life. He graduated from Cornell University in 1909 with the degree of Mechanical Engineer. Immediately after graduation he was appointed assistant in the School of Electrical Engineering, and from that date until his death his connection with the University was continuous. As Assistant Professor he became a member of the University Faculty in 1916 and at the time of his death he was Professor of Electrical Engineering.

Professor Alvin Casey Beal died on May 6, 1929. He received the degree of Doctor of Philosophy from Cornell University in 1911, having taken his undergraduate course at the University of Illinois. He was appointed Professor of Floriculture in 1913, having arisen from the rank of assistant in that department. He was primarily interested in the historical aspects of his science and in the work of research dealing with ornamental horticulture.

Through retirement from active service the Faculty lost an unusually large number of its highly esteemed senior members, the dates of whose service in the Faculty are indicated in parentheses: Librarian Willard Austen (1892–1929), Professor H. J. Davenport (1916–1929), Professor G. R. McDermott (1892–1929), Professor V. A. Moore (1896–1929), Professor Annette J. Warner (1917–1929).

Changes in the University Faculty's total membership during the past three years have been very slight, as is indicated by the following table:

	1926–27	1927–28	1928–29
Resident in Ithaca	362	364	364
" " New York City	71	64	73
" " Geneva	10	10	10
" " Long Island	1	2	2
	444	440	449

Article VIII of the Statutes of the University was amended by the Trustees on January 26, 1929, to include in the University Faculty the following additional members: the Director of Admissions, the Director of Resident Instruction, the Director of Extension Service, and the Director of the Experiment Station in the College of Agriculture and Home Economics.

The number of emeritus professors in 1927–28 was 24; in 1928–29 the number increased to 27. Last year the Board of Trustees granted leaves of absence for the whole or part of the academic year to 36 professors, against 41 in 1927–28. Of the 36 leaves, 30 were granted under the provisions for sabbatic absence.

The Faculty held nine regular sessions and no special session.

FACULTY REPRESENTATIVES ON THE BOARD OF TRUSTEES

On December 12 the Faculty elected the Professor of Experimental Engineering, Herman Diederichs, Faculty Representative on the Board of Trustees for the

regular term of three years, beginning January 1, 1929, to succeed Professor V. A. Moore, whose term expired on December 31, 1928. The Faculty representation at the close of the academic year 1928–29 was as follows:

Professor Frank Thilly, term expires December 1, 1929; Professor George F. Warren, term expires December 1, 1930; Professor Herman Diederichs, term expires December 1, 1931.

THE LIBRARY AND HECKSCHER COUNCILS

Of the four Faculty members of the Library Council Professors W. B. Carver and William Strunk were elected on October 10, to represent the Group of Science and the Group of Letters respectively. The Library Council, as now constituted, consists of the following members:

The President of the University, *Ex officio*
The Librarian, *Ex officio*
Professor Albert H. Wright, November 1, 1927–October 31, 1929.
Professor George L. Hamilton, November 1, 1927–October 31, 1929.
Professor W. B. Carver, November 1, 1928–October 31, 1930.
Professor William Strunk, November 1, 1928–October 31, 1930.

On October 10 the Faculty elected Professor Carl Becker as one of its four representatives on the Heckscher Council for the regular term of four years, namely November 1, 1928, to October 31, 1932.

WAR ALUMNI

On the recommendation of the University Faculty the Board of Trustees conferred the distinction of War Alumnus on the following students, who, following their service in the World War, were unable to return to the University to complete the requirements for an academic degree: Glen Walter Cole, ex.–'18 in the College of Arts and Sciences, Victor Emanuel, ex. –'19 in the College of Arts and Sciences, Adrian Foote Shannon, ex. –'19 in the College of Agriculture, William D. M. Shuman, ex. –'18 in the College of Arts and Sciences.

DAYLIGHT-SAVING AND AFTERNOON CLASSES

On November 14 the Faculty recommended to the Board of Trustees that the daylight-saving experiment tried in the Spring and Autumn of 1928 be not readopted in 1929. The impracticability of the plan was due principally to the confusion and inconvenience resulting from the use of two community times, standard time by the city of Ithaca and daylight-saving time by the University. Inasmuch as it was considered desirable to provide greater facilities for physical recreation, the Faculty voted to refer the question of the earlier closing of afternoon classes and laboratory work to an appointed committee for its consideration and report, with instructions that the committee confer with the special Faculties and secure their opinions. As a result of this inquiry the Faculty voted to close all formal university exercises for undergraduates in undergraduate courses at 4 P. M., instead of the former usage of closing at 4:30 or even later. By adjustment of the day's schedule this arrangement was made without sacrifice of the traditional amount of scholastic work. The plan went into effect at the beginning of the second term of 1928–29 and apparently works sufficiently well to justify its continuance.

The athletic organizations and intramural sports occupy, as they should, a very large number of undergraduates during the latter part of the afternoon in spring and autumn. It is highly desirable from the point of view of student health that adequate provision, both in the matter of class and laboratory schedules and of physical facilities, be made for this aspect of the University's life. And it would seem possible to do this without any sacrifice of the scholastic interests of the University. The records of the Department of Physical Training indicate that intramural sports included principally football, soccer, baseball, cross country races, tennis, basketball, hockey, boating, wrestling, and track. To these the important sport of swimming ought to be added, but is handicapped

by the lack of an adequate pool. The Director of the Gymnasium reports that during the year 512 competitive intramural games were played, in which there were 3093 participants.

I take this opportunity to renew the request made in my former reports that steps be taken as soon as possible to supply an improved gymnasium urgently needed for winter service.

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS

There were 92 competitors at the September, 1928, examinations, a decrease of 22 from 1927. English and Mathematics are required of all competitors. Latin, Greek, French, German, and Spanish are electives. The result in percentages is stated in the following table:

English	Mathematics	Latin	French	German	Spanish
100%	100%	37%	49%	5%	9%

For the year 1927–28 the percentages of election were Latin 33%, French 58%, Spanish 5%, and German 4%. The regrettable decay of Greek in the secondary and public schools is indicated by the fact that no student in recent years has presented himself for examination in this subject.

MEDICAL EXCUSES

Many generations of students have availed themselves of the privilege of consulting the Medical Adviser regarding minor illnesses, the evidence of which is frequently obtainable only from the student's statement, and following the medical interview the Adviser is ordinarily requested to furnish an official excuse, which the student then presents to the professor whose class or examination the patient has failed to attend. As these excuses in the course of the year mount into several thousands (9982 day by day medical excuses issued in 1927–28) and become an unjustifiable expense and burden on the Adviser's office, the Faculty voted on March 13 to discontinue them. In lieu of such excuses, the records of the medical office are made available to the Deans of the several colleges when illness has a supposed bearing on the scholastic deficiencies of students.

STUDENT AUTOMOBILES

Few topics attract as much attention and adverse criticism in the University community as the use and parking of student automobiles on the Campus. Not only is the rare beauty of the University's grounds disfigured, large and increasing areas being laid bare for cars of questionable utility, but the continuous speeding of automobiles across walks frequented by throngs of pedestrian students, creates a problem of no small magnitude. It is quite apparent that a serious study of feasible automobile restriction is immediately necessary.

W. A. HAMMOND,
Dean of the University Faculty.

APPENDIX II

REPORT OF THE DEAN OF THE GRADUATE SCHOOL

To the President of the University:

SIR: I have the honor to present the report of the Graduate School for the year 1928–29.

ENROLLMENT AND DEGREES GRANTED

The enrollment during the past academic year was 767, exactly the same as during the preceding year. The enrollment during the summer of 1928 was 518, an increase of about nine per cent over that of the summer of 1927.

A noteworthy trend shown by the statistics of enrollment is the relatively high and increasing percentage of candidates for the doctor's degree. Of candidates for advanced degrees enrolled during the academic year, nearly 57 per cent were candidates for the doctor's degree. Although this is only slightly greater than the average percentage for the three-year period 1926–27 to 1928–29, which was nearly 56, it is materially greater than the average for the preceding three-year period, for which it was a little less than 49.

A similar trend is to be noted in the enrollment during summers. Of all candidates for advanced degrees enrolled during the past three summers, 1926–28, somewhat over 35 per cent were candidates for the doctor's degree, while, for the summers of 1923–25, the percentage averaged only slightly over 26. The difference in these percentages between summer and the academic year is to be accounted for by the enrollment during the summer of a considerable number of secondary school teachers most of whom are candidates for master's degrees.

The percentage of our students who are candidates for the doctor's degree is relatively high in comparison with certain other strong graduate schools. Although this is no disadvantage from the standpoint of the quality of graduate work done, it suggests that our Graduate School is not attracting secondary school teachers as some other institutions are.

The students enrolled during the past year came from 239 colleges and universities. The average for the past three years was 222 and for the preceding three years 184. Notwithstanding the fact that our students come from so many other institutions, the percentage entering the Graduate School from our own undergraduate colleges remains high, but the trend during recent years is downward. The past year somewhat less than 33 per cent entered from Cornell colleges, as contrasted with 34 as the average for the past three years and 39 for the preceding three-year period.

Graduate students last year came from 23 foreign countries, three insular possessions, and every state but one of continental United States. Notwithstanding this wide geographical range, slightly over 44 per cent of our students enrolled from New York State, and somewhat over 15 per cent from six adjoining states, or about 60 per cent from this general region. Seven southern, middle western, and far western states contributed about 14 per cent of our students, and foreign countries nearly 12 per cent, nearly one-half of the latter having come from Canada and China.

THE HOUSING OF MARRIED GRADUATE STUDENTS

It has become increasingly evident that a serious situation exists with respect to the proper housing of married graduate students. Of the 767 graduate students enrolled during the past academic year, 169 are married. Before any move could be made to alleviate the undesirable conditions, it was deemed advisable to obtain such detailed information on the subject as might be possible. Accordingly a study was initiated by the administration of the Graduate School.

A questionnaire was sent to the 169 graduate students and 98 returns were received. Professor Melvin, of the department of Rural Social Organization,

and Mrs. Melvin are largely responsible for the formulation of the questionnaire and wholly so for the analysis of the returns. I acknowledge here my indebtedness for this service to the Graduate School.

Of the 98 students who replied, over 60 per cent had previously held positions in other universities or colleges, and 32 per cent had had positions above the rank of instructor. This is significant as indicating the maturity of this group of students and something of the living conditions to which they had been accustomed. The average age of the men was slightly over 32 and that of their wives slightly over 30 years.

Of the 98 families reported, 58 had children, 97 in all, 49 below five years of age. The prevalence of children was found greatly to increase the difficulty of finding suitable apartments and aggravated the difficulties when the apartments finally obtained were unsatisfactory. Families with children averaged four rooms per apartment and those without children 3.2 rooms.

Rentals varied from $20 to $85 per month with an average of about $47. Added costs for light, water, etc., brought the average to nearly $56. While these rentals are perhaps not excessively high for satisfactory though small apartments, they indicate the upper limits of the students' ability to pay. The important consideration is that many of the apartments were not satisfactory.

The congested area of graduate student families lies near the campus between an expanding business area and a rapidly developing residential district. The buildings of this area were erected in large part as student rooming houses. With the withdrawal of many students from the area to dormitories and fraternity houses, many of the buildings have been remodeled into makeshift apartments.

Most of our graduate student families lived in apartments ranging from basements to third floors. Since most of the apartments were above ground, there was in general the possibility of obtaining sufficient light and fresh air. In a few apartments, however, particularly those in basements, living conditions were far from satisfactory from the standpoint of the health of the occupants.

Lack of privacy in home life was complained of by about 20 per cent of the families. In a number of instances roomers had to pass through apartments to get to their rooms. Nearly 35 per cent of families living in apartments had to share their bath rooms with other families or with roomers.

Although a considerable number of married students succeed in finding suitable apartments within their reach financially, the situation as a whole is far from satisfactory. In my opinion the time has come for action either by the University or by business men who might be interested in the problem. There is need at once for from 50 to 100 inexpensive apartments constructed to meet the requirements of graduate student families and so grouped as to afford a community of such families. Similar undertakings carried to a successful conclusion at certain other universities have had a large part in improving the morale of other graduate schools.

R. A. EMERSON,
Dean of the Graduate School.

STATISTICS OF ATTENDANCE OF GRADUATE STUDENTS

	1928–29	1927–28	1926–27	1925–26	1924–25
Number of students registered during the academic year	767	767	677	659	583
Number of students registered during the summer, as below	518	475	414	429	365
Summer Sessions	331	315	284	279	261
Personal Direction	187	160	130	150	104

Classification of Graduate Students

Graduate students receiving degrees, classified according to the degree received:

	1928–29	1927–28	1926–27	1925–26	1924–25
Doctors of Philosophy	102	95	91	71	60
Masters degrees, as below	175	185	134	141	141
Masters of Arts	91	83	57	55	50
Masters of Science	51	69	53	60	54
Masters of Science in Agriculture	4	8	5	6	13
Masters in Landscape Architecture	0	0	1	0	1
Masters in Forestry	6	2	6	3	2
Masters of Architecture	1	2	4	1	1
Masters of Chemistry	3	0	0	1	0
Masters of Civil Engineering	7	12	4	5	9
Masters of Mechanical Engineering	9	7	4	7	7
Masters of Electrical Engineering	2	2	0	3	4
Masters of Fine Arts	1	0	0	0	0
Total	277	280	225	212	201

Graduate students classified according to the degree for which they are candidates:

	Academic Year	*Summer*
Doctors of Philosophy	403	185
Masters degrees, as below	309	317
Masters of Arts	147	206
Masters of Science	108	101
Masters of Science in Agriculture	6	2
Masters of Forestry	6	4
Masters of Architecture	1	0
Masters of Chemistry	6	1
Masters of Civil Engineering	15	0
Masters of Mechanical Engineering	11	3
Masters of Electrical Engineering	7	0
Masters of Fine Arts	1	0
Masters of Laws	1	0
Non-candidates:		
Resident Doctors	2	0
Others	53	16
Total	767	518

Graduate Students classified according to the group in which the major subject falls:

	1928–29	1927–28	1926–27	1925–26	1924–25
Group A, Languages and Literatures	125	108	98	69	75
Group B, History, Philosophy, Education, and Political Science	187	212	155	179	138
Group C, Physical Sciences	169	161	140	151	129
Group D, Biological Sciences	155	157	166	145	118
Group E, Engineering, Architecture	63	54	54	61	52
Group F, Science Departments, New York City	4	1	3	2	3
Group G, Agricultural Sciences	63	63	61	52	63
Group H, Law	1				

INSTITUTIONS FROM WHICH STUDENTS ENTERED THE GRADUATE SCHOOL

Aberdeen	2	Furman	2
Acadia	3	Gartenbau, Germany	1
Adelphi	1	George Washington	1
Agnes Scott	1	Georgetown	1
Agricultural College of Norway	1	Georgia	2
Alabama Polytechnic	1	Georgia State	2
Alabama Woman's College	1	Gettysburg	1
Alfred	1	Glasgow	1
Allegheny	2	Goucher	4
Alma	1	Greensboro	1
Amherst	2	Grinnell	2
Arizona	2	Guilford	1
Arkansas	2	Hamilton	6
Baker	2	Hampton Teachers	1
Bangabosi, India	1	Harvard	3
Barnard	2	Hastings	1
Bombay	1	Hawaii	1
Bonn	1	Hiram	4
Brigham Young	1	Hobart	2
British Columbia	3	Hokkaido	1
Brooklyn Polytechnic Institute	1	Holy Cross	1
Brown	2	Hongkong	1
Bryn Mawr	1	Hope	1
Bucknell	3	Howard	1
Buffalo	2	Howard University	1
California	2	Hunter	3
California Institute of Technology	3	Huron	1
Capital University, Columbus	3	Illinois	13
Carleton	2	Institut Agricole d'Olso	1
Carthage	1	Institutio Agronomo, Chile	1
Chalmers	1	Iowa	3
Chicago	4	Iowa State	7
Clark	1	Johns Hopkins	1
Clemson	3	Judson	1
Coe	2	Kansas	10
Colgate	4	Kansas State Agricultural	7
Colorado	3	Kansas State Teachers College	1
Colorado Agricultural	2	Kenyon	1
Colorado State Teachers College	1	Kiel	1
Columbia	5	Knox	1
Connecticut Agricultural	2	Lafayette	2
Constantinople Woman's College	1	Lake Erie	1
Cooper Union Institute	1	Laval	2
Cornell College, Iowa	2	Lawrence	1
Cornell University	250	Lewis Institute	1
Dallas	1	Liege	1
Dartmouth	3	Lincoln Memorial	1
Dayton	2	London	2
Denison	1	Louisiana	2
DePauw	9	Louisville	2
Dickinson	1	McGill	1
Drake	1	Maine	2
Duke	2	Maryland	2
Edinburgh	1	Massachusetts Agricultural	2
Ellsworth	1	Meridian	1
Elmira	3	Michigan	4
Fagreb, Jugo-Slavia	1	Michigan State	3
Florida	1	Middlebury	2
Fukien	1	Minnesota	5

Geographical Distribution of Graduate Students

Alabama	4	South Dakota	2
Arizona	1	Tennessee	3
Arkansas	2	Texas	6
California	13	Utah	6
Colorado	3	Vermont	3
Connecticut	10	Virginia	10
Delaware	2	Washington	2
District of Columbia	5	West Virginia	7
Florida	3	Wisconsin	6
Georgia	5	Wyoming	1
Idaho	2		
Illinois	16	Argentina	1
Indiana	18	Belgium	1
Iowa	11	Bermuda	1
Kansas	12	Canada	21
Kentucky	4	Chile	1
Louisiana	3	China	20
Maine	2	England	6
Maryland	4	France	1
Massachusetts	15	Germany	4
Michigan	9	Guatemala	1
Minnesota	6	Hawaiian Islands	1
Mississippi	2	India	4
Missouri	11	Iraq	1
Montana	2	Italy	1
Nebraska	2	Japan	3
Nevada	1	Korea	1
New Hampshire	2	Panama	1
New Jersey	19	Philippine Islands	5
New York	340	Poland	1
North Carolina	13	Porto Rico	1
Ohio	34	Scotland	4
Oklahoma	2	South Africa	6
Oregon	6	Sweden	2
Pennsylvania	37	Switzerland	1
Rhode Island	2	Turkey	1
South Carolina	7	Yugo-Slavia	1

APPENDIX III

REPORT OF THE DEAN OF THE COLLEGE OF ARTS AND SCIENCES

To the President of the University:

SIR: I have the honor to present the following report of the College of Arts and Sciences for the academic year 1928–29.

The registration in the College has not varied notably from that of recent years. The numbers will appear in the report of the Registrar, while a discussion of methods of selection now becomes a subject for report by the newly appointed Director of Admissions, Dr. E. F. Bradford. I may say, however, that we welcome the establishment of this new office, which has not only relieved the College of a serious responsibility but also promises a thoroughly efficient administration of the difficult task of selective admission.

Since the number of students in the College has become stationary, the necessity of enlarging our staff of instruction has practically disappeared. Our present aim is to improve the quality of instruction and to provide adequate physical facilities for carrying instruction on. The need for more satisfactory housing is still pressing, as it has been for several years past. We therefore hope that when the Law School is provided with a new home, Boardman Hall will become available for our use. By moving one or two of our larger departments into this building, we shall be able to provide the additional offices and class-rooms in Goldwin Smith Hall which we so much need.

The College is subject to an increasing amount of criticism for not extending and organizing its efforts to place seniors and recent graduates in business. The demands of business houses are insistent, and our present inability to supply the information and arrange the personal interviews which they call for, is putting our seniors under a serious handicap. Because of the difficulty of making contacts with available and properly qualified applicants, many reputable firms no longer seek to employ graduates of this College. Until a placement bureau is established there is little that the College can do to improve this situation. It seems to us that a central bureau for the University at large is preferable to the creation of a special office within the College. As soon as a plan for placement service has been agreed upon, this College will stand ready to cooperate heartily in putting it into effect.

We welcome the cooperative effort of the College of Architecture in opening a number of its courses to the students of this College. Provision has been made to offer elective courses, not only in the history of art and architecture, but also in drawing, painting, and modeling. The highly interesting prospect of education in the fine arts is thus brought within the reach of the student of Arts and Sciences.

An important supplement to this offering in the fine arts is anticipated with the appointment, as Professor of Music, of Mr. Paul J. Weaver to whom has been entrusted the working out of a program of musical education which will be in consonance with the aims and ideals of this College. As a means of correlating studies in music and the fine arts, the time is now ripe for the further development of the subject of aesthetics. The distinguished services which have been rendered in this field by the Professor of Philosophy, Professor W. A. Hammond, should not be allowed to lapse with his retirement. The appointment of a worthy successor will enable us to provide major fields of study in which the philosophy of art, together with its history, theory, and technique, are properly balanced in a liberal program of studies.

The most interesting experiment conducted by the College during the past year has been that of discontinuing formal instruction in the week preceding term examinations. While some members of the faculty were unwilling to give up lecturing during this week, and others have found the nature of their work unsuited to the adoption of this measure, many have been highly gratified with

the results obtained. Accordingly, the faculty has voted to continue the provision for another year. At the same time it has recommended that, even where classes are not dismissed, this week shall be devoted primarily to a review of the term's work. If this provision wins general support it will restore to the course of instruction a unity which is lacking where each preliminary examination serves as a final for a part of the course, and where the best students in the class are excused from term examination without the requirement of ever reviewing the work of the course as a whole.

Our plans of informal study, both supervised and unsupervised, are fast winning an important place in the curriculum of the College. While at present these plans are perhaps unduly complicated, it is fairly safe to predict that we shall soon be able to generalize our procedure in such a manner that any student of proved ability will be entitled to a large degree of independence in shaping his course of study.

During the year past forty-three seniors and twenty juniors were enrolled in supervised informal study during the first term, thirty-eight seniors and twenty-five juniors during the second term. All told, ninety-two upperclassmen were pursuing informal study in eighteen different fields under the supervision of thirty-eight members of the faculty.

Unsupervised informal study—a privilege to reduce schedules from five to four courses which is accorded to the fifty who rank highest in the sophomore and junior classes—was enjoyed by thirty-seven sophomores in the first term and eighteen in the second; twenty juniors in the first term and eleven in the second. The faculty has now voted to extend this type of informal study to the senior year.

In all, 150 different students were enrolled at some time during the year in one or other type of informal study.

The next important step in extending and consolidating our program of independent study would appear to be a more definite regulation of the "degree with honors." At present, "the degree of Bachelor of Arts with Honors in the field of a student's upperclass group will be conferred upon those students who, in addition to having completed the requirements for the degree of Bachelor of Arts shall have (1) received a grade of B or better in at least half of the courses for which they have been enrolled, and an average of B or better in the courses for which they have been enrolled in the field of their upperclass group requirement; (2) passed with distinction a thorough comprehensive examination in the field of study in which their upperclass group requirement was satisfied; (3) been recommended for the said degree by the department or departments in which their work for the upperclass group was done."

At present, only a small number of students avail themselves of this provision. The number graduated with honors in June was five. A serviceable way in which to increase this number, by making informal study eventuate more often in a comprehensive examination which will test and certify the candidate's knowledge of his special field of study, is not readily devised. In our situation the relations of our best students to their fields of concentrated study are largely by way of the individual professors who serve as their advisers. It is doubtful if a comprehensive examination set by one's own adviser, with whom one has already taken several courses, can ever be sufficiently objective to make an award of "honors" seem highly significant or desirable. On the other hand, the employment of external examiners, or of a committee of the faculty which would supervise comprehensive examinations, might destroy something of the close personal contact between the student and his adviser which is now the most important feature of our plan of independent study. This matter is one which the faculty will doubtless wish to consider, now that so large a number of students are availing themselves of the privileges of informal study.

Our experiment in the conduct of examinations under the "honor system" has brought no very notable results during the past year, except that the number of cases in which fraud was charged has been much smaller than it was in 1927–28. Only fourteen cases have been heard by the College Honor Committee, as compared with twenty-five reported last year. These fourteen cases involved twenty-two persons. Eleven of these were students of this College, seven were Engineers, two were students of Hotel Management, and two were students of Agriculture.

Four of these students were dismissed, or recommended for dismissal, from the University. Ten were placed on parole, three were reprimanded, three were exonerated, and in the cases of two no action was taken.

While the small number of cases which have come before the committee might seem to indicate a general improvement in our situation, rumors of wide-spread cheating in largely attended courses still reach our ears. The following paragraphs are taken from an editorial in the *Cornell Daily Sun* of June 14, 1929 as an expression of student opinion on the subject:

"Cornell seems destined in the very near future to follow the steps of several of its practical contemporaries and abolish the honor system. The tendency away from the idealism which prompted the honor experiments has been notable in the past year or two throughout the country, and conditions here are being found comparable to those which have been described as at the root of difficulties in other institutions.

"Without doubt the so-called honor system is a 'noble experiment,' and theoretically ought to be workable in a community of this kind if there is any honor in the world at all. The fact of the matter is, however, that a firm and universal moral consciousness, which is the fundamental prerequisite, is impossible except in a homogeneous and well-organized community such as this is not. The University is too cosmopolitan; it is international and interracial; it is composed of all kinds of people, half of whom have nothing in common with the other half except that they are all Cornellians, and that is not enough. In such a congregate a high and universal sense of honor is impossible because there is no array of individual consciences against each other. There is rather an array of groups, and no group is morally strict within itself because it feels that it is in competition with another group which it does not trust.

"The system already has been abolished in several of the larger courses, notably in the Chemistry Department, because it was found a farce. It is common knowledge that violations are the rule in many Engineering courses and in the language departments. Under these circumstances, the University seems obliged to give up the Honor System as unworkable, and reestablish the old system of proctoring."

I have ventured to quote this statement because it confirms an opinion expressed in my discussion of the matter last year. I would merely add by way of comment that in abandoning the honor code under which examinations are now conducted we should not be re-establishing "the old system of proctoring," because it was not a proctor-system the honor system displaced. An assumption of "general honor and good behavior" would still continue to be the basis of conduct in examinations, as it is in every other student activity. We should merely be returning responsibility for the conduct of examinations to the faculty, where it rightly belongs. The members of the faculty would be called upon to supervise examinations as they supervise lectures, laboratories, and class-room exercises, with the employment of such methods as are most appropriate in each several instance. In some courses a strict supervision which amounts to proctoring would no doubt seem advisable; but in other courses the relations of student and teacher have always been such that proctoring is uncalled for.

The joint Committee which now administers the honor system, has been made up of the following persons: the Dean, Chairman; from the faculty, Professors English, Gibbs, Hebel, O'Leary, Pumpelly, and Sibley (Secretary); from the students, the Misses E. L. Blood '30, and E. W. Corwin '29, and the Messrs. H. L. Case '29, W. C. Heasley '30, J. D. Waterbury '29, and C. W. Wilson '31. The confidence and understanding between the students and faculty of the College which the work of this Committee has done so much to foster, leads me to believe that any subsequent modification in the practice of conducting examinations which this Committee may propose will meet with the hearty approval of all concerned.

The standing Committees of the College have performed their several functions with zeal and enthusiasm. On Dec. 4, 1928 the faculty recommended to the Board of Trustees that the title Assistant Dean be added to the present designation of the Secretary of the College, Professor R. P. Sibley. This action was taken by the Board of Trustees on Dec. 15, 1928, and the Assistant Dean thus becomes *ex-officio* a member of the standing Committees of the College.

The Committee on Educational Policy has been made up of the following elected members: Professors H. D. Reed and Thilly (1929), English and Becker—the latter filling the unexpired term of Mountford, resigned—(1930), Carver and Pumpelly (1931). The faculty has elected Professors Bentley and Petry to succeed Professors Reed and Thilly whose terms expire with the close of the present academic year.

The Committee on Academic Records has consisted of the following persons: the Dean, the Assistant Dean, and the Chairman of the Advisory Board for Underclassmen, *ex-officio;* Professors Claassen, Dale, and Laistner (1929); Dallenbach (Bentley substituting during the second term), Jordan, and Nichols (1930); Cunningham, Homan, and Sharpe (1931). Professors Caplan, Matheson, and Murdock have received appointments to succeed the first three persons named whose terms expire on Nov. 1, 1929. Professor J. R. Johnson will also join the Committee in place of Professor Nichols who will be on leave of absence.

The Advisory Board for Underclassmen has consisted of Professors Bishop, Monroe, and Petry (1929); Laubengayer, Sibley, and Wichelns (1930); Marcham, Nevin, and Freeman—Chairman (1931). The newly appointed members who will succeed the first three named on November first are Assistant Professors French, Liddell, and Woodward.

Other Committees of the College include:

The Committee for Conference with the Board of Trustees: Professors Gibbs (1929), English (1930), and the Dean.

The Committee on the Boldt Scholarships: Professors English (1929), Sibley (1930), and H. D. Reed (1931).

The Committee on Ornamentation and Decoration of Goldwin Smith Hall: Professors Sampson (Chairman), Bishop, and Marcham, with whom are associated Professors Bosworth, of the College of Architecture, Hammond, and Hull, as advisory members.

The Committee in charge of the Goldwin Smith Reading Room: Professors Hebel (Chairman), Adams, and Becker.

The Committee on Goldwin Smith Lectures: Professors Guerlac (Chairman), Cooper, and Laistner.

The last named Committee arranged twenty-nine lectures which were attended by large and appreciative audiences. The visiting scholars, many of them distinguished foreigners, who made up this group of lecturers, continue to bring new and stimulating ideas to the campus.

Mention should also be made of a like service rendered by the George Fisher Baker non-resident lecturers in Chemistry. During the first term of the year past, Professor Hans Pringsheim of the University of Berlin was in residence. He was followed in the second term by Professor F. M. Jaeger of the University of Groningen. The University had likewise the good fortune to secure the services of Professor Wolfgang Köhler of the University of Berlin as visiting Professor of Psychology during the second half of the spring term.

R. M. OGDEN,
Dean of the College of Arts and Sciences.

APPENDIX IV

REPORT OF THE DEAN OF THE LAW SCHOOL

To the President of the University:

SIR: I have the honor to submit the following report regarding the Cornell Law School for the year 1928–29.

The most important occurrence in the life of the Law School during the past year was of course the gift to the University by Myron C. Taylor, Law 1894, of $1,500,000 for a new law building to be known as Myron Taylor Hall. Mr. Taylor's letter of gift was itself most interesting, showing, as it did, his conviction of the importance of legal training not only for those engaging in the practice of law, but also for those charged with the affairs of government, and with the guidance of large business enterprises, and particularly stressing the possibility of more adequate training of those who wish to engage in government service abroad. Myron Taylor Hall will furnish a magnificent setting for the Law School, and will put at the disposal of the Law Faculty the finest facilities for undergraduate and graduate work in law, and for legal research. Diligent endeavor is being directed towards the perfection of plans for the new building, and the preliminary work in this field is largely done.

During the past year we have lost one member of the Law Faculty through resignation. Professor Elliott E. Cheatham has accepted a call to Columbia University. All of Professor Cheatham's colleagues very much regret his going. He is a fine teacher, and has been a very helpful member of the Faculty, and an excellent Faculty Editor of the Cornell Law Quarterly. Two new members are being added to the Law Faculty at the beginning of the new academic year, Professor Henry W. Edgerton, who comes from the University of Chicago, and Professor Gustavus H. Robinson, who comes from Boston University. They are both men of maturity, excellent teachers, and thorough scholars, who have gained recognition by their writing. The Law Faculty will be distinctly stronger as the result of their joining its ranks.

Assistant Professor Farnham has been granted a leave of absence for the year 1929–30, to pursue graduate study at Harvard, where he has been appointed Ezra Ripley Thayer Teaching Fellow. His work will be carried for the year by Assistant Professor Harold E. Verrall, who graduated with distinction from the University of Minnesota Law School, and who has been teaching this last year at the University of Louisiana.

The Cornell Law Faculty, though increased to nine, continues to be abnormally small for the work which we must do and for the standards which we must maintain, and is very much smaller than the law faculties at Harvard, Yale, Columbia, Michigan, and Chicago. This results at Cornell in limiting productive scholarship, in overloading members of the faculty, and in restricting the curriculum. It is most important that the personnel of the law faculty be steadily increased, and that this be accompanied by a continued increase in salaries.

By action of the Board of Trustees in June, 1928, the University was authorized to confer advanced degrees in law, namely the degrees J.S.D. and LL.M. Graduate work in law has been organized under the general direction of the Faculty of the Graduate School. Within that faculty a Law Group (Group H) has been set up, consisting of the members of the Law Faculty and the Chairmen of the Departments of History, Philosophy, Economics, and Government, in which Group is vested authority to establish and administer rules for admission and graduation of candidates for graduate degrees in Law. Students are only admitted to such work who have met the requirements for admission to the Cornell Law School, and who have received a first degree in law from a Law School qualified for admission to the Association of American Law Schools. Work for the Master's degree is intended primarily for those in practice or intending to practice, who desire to increase their knowledge of the law by intensive work in special fields. Work leading to the Doctor's degree is planned to train legal scholars and to

stimulate original investigation. There is no provision as yet for any fellowships available to graduate law students. Such fellowships are greatly needed. At present three students are registered as candidates for graduate law degrees.

The Faculty of the Law School have recently amended the rules with regard to credits required for graduation so that a student having a B average or better at the end of his fourth term may graduate with four hours less of course work than is normally required, and so that a student with somewhat better than a half B record may graduate with two hours less of course work than is normally required. The purpose of this is to give opportunity to students who manifest superior ability to engage in informal study with the aid of members of the Faculty.

Under the direction of a committee of the Law Faculty, a comparative study was made last year of the Restatement by the American Law Institute of the law of New York State in the field of Contracts. Professor Whiteside was directly in charge of the work. The results of this study were published as a special supplement to Volume XIV of the Cornell Law Quarterly. The New York State Bar Association arranged to distribute copies of this supplement to all of its members. This was brought about by the Committee of the New York State Bar Association on Co-operation with the American Law Institute, of which Hon. Frank H. Hiscock was Chairman, and of which I was a member. This piece of work which was made possible by a grant from the Ward Fund, was very cordially received by the Bench and Bar of the State and by the American Law Institute, and the comments upon it were exceedingly favorable. Many copies of the supplement have been bought by members of the Bar and by the Law Schools. Through a grant from the Heckscher Research Fund it has been made possible for the Law Faculty to arrange to continue this comparative study during the next academic year. The direction of this work will be the same as last year.

The First Year Moot Court work was carried on again during the past year with marked success. The final case was argued April 26th, before a distinguished bench. Hon. Learned Hand of the United States Circuit Court of Appeals in the Second Circuit, presided. With him were associated Hon. Frederick P. Schoonmaker, '91, Judge of the District Court of the United States, Western District of Pennsylvania, and Hon. Rowland L. Davis, '97. Associate Justice of the New York Supreme Court, Appellate Division, Third Department. The names of the participants each year in the Final Moot Case are inscribed on a panel erected for that purpose in the Law Library.

Honorable Frank H. Hiscock, '87, was reelected President of the Cornell Law Association, at the annual meeting of that organization, held in Boardman Hall, last November. At that meeting Honorable William C. Breed, of New York City, President of the New York State Bar Association, delivered the annual address. The Association continues to be exceedingly helpful to the Law School particularly in stimulating contributions to scholarships and to the Loan Fund, and aiding in the support of the Law Quarterly.

Professor Arthur L. Goodhart of the University of Cambridge, this year Visiting Professor in the Yale Law School, delivered the annual Phi Delta Phi address on the Frank Irvine Foundation at noon on Saturday, April 27th. His subject was "Case Law in the United States and England." On the evening of March 15th, Mr. Sam A. Lewisohn, Vice-President of the Miami Copper Co., and of the Tennessee Copper and Chemical Co., spoke at the Annual Law Smoker. I. Maurice Wormser, Editor of the *New York Law Journal*, visited Cornell as a lecturer on the Jacob H. Schiff Foundation in March, and delivered an address before the Law School. During the last week of March Mr. L. Ward Bannister, of Boulder, Colorado, delivered a series of lectures on "Water Rights in Western States," and on the evening of the 27th he discussed before a general university audience the Boulder Canyon Dam Project on the Colorado River.

Following is a roster of the Faculty in the 1928 Summer Session in Law, with the courses taught:

George J. Thompson (Cornell), Contracts.
Lyman P. Wilson, (Cornell) Property 1a.

Karl N. Llewellyn (Columbia), Suretyship and Mortgages.
Judson A. Crane (Pittsburgh), Partnership.
Douglas B. Maggs (Southern California), Trusts.
William H. Farnham (Cornell), Insurance.
Horace E. Whiteside (Cornell), Contracts.
Maurice H. Merrill (Nebraska), Agency.
Roswell F. Magill (Columbia), Taxation.
George W. Goble (Illinois), Sales.
Merrill I. Schnebly (Missouri), Wills.
Thomas C. Lavery (Cincinnati), Damages.
Charles J. Hilkey (Emory University), Bankruptcy.

During the year 1700 volumes were added to the Law Library, making a total number of volumes in the library of 65,037. Two hundred ninety volumes were received as gifts, and 175 volumes were added to the Earl J. Bennett Collection of Statute Law. Five hundred sixty volumes were rebound or repaired, and 3500 volumes, bound in sheep, were specially treated.

In recent years the development of the Law Library has been hampered by lack of stack space in Boardman Hall, as well as by limited funds. The picture will be entirely changed when Myron Taylor Hall, with its book space for some 450,000 volumes, is ready for occupancy. We must now begin to make our plans for the much needed expansion of our Law Library into the fields of Continental European Law, Spanish-American Law, and, eventually, of Asiatic Law. We must also perfect our already excellent library in Anglo-American Law.

It is also imperative that we give serious attention to the expansion of library personnel. Mr. Willever has maintained and developed the library extraordinarily well, with the help of student assistants only. This however will no longer be possible in the larger building, and with a rapidly expanding library. There must be a competent Assistant Librarian; and the staff of student assistants will have to be enlarged.

The total registration throughout the past three years in the regular sessions of the Law School has been as follows:

	1926–27	1927–28	1928–29
Third Year	49	30	38
Second Year	39	46	59
First Year	75	107	99
Specials	5	1	2
Total Law Students	168	185	198
Students in other departments electing some courses in law	7	12	7
Total receiving instruction in the Law School	175	197	205

Of the total of first year students those also registered as seniors in the College of Arts and Sciences numbered 55 in 1926–27, 78 in 1927–28 and 60 in 1928–29.

Of the students registered in the Law School 24% lived out of New York State in 1926–27, 29% in 1927–28, and 30% in 1928–29.

Thirty-eight colleges and universities are represented in the law student body, and the students in the Law School come from 19 states and 2 foreign countries.

Enrollment in the last three Summer Sessions in Law has been as follows: 94 in 1926, 76 in 1927, and 120 in 1928.

Between June 1, 1928 and June 1, 1929, 31 students were recommended for the degree, LL.B., and have had the degree conferred upon them by the Trustees. Also between June 1, 1928 and June 1, 1929, 30 students were dropped from the Law School, consisting of 2 third-year students, 9 second-year students, 19 first-year students and 57 were put on probation in both terms, classified as follows: no third-year students, 18 second-year students, and 39 first-year students.

In June, 1928, the Boardman Scholarship, for the best work done during the preceding four terms, was awarded to Maxwell H. Tretter, and in the academic year 1928–29, the first and second Fraser Scholarships were awarded by vote of

the third year class to Kenneth W. Fuller and Edward M. Boyne, respectively. Maxwell H. Tretter won the W. D. P. Carey Exhibition, and Curtis S. Bates, Sidney J. Berger, Herman E. Compter and Maxwell H. Tretter were elected to the Order of the Coif, the legal honorary society.

CHARLES K. BURDICK,
Dean of the Law School.

APPENDIX V

REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to submit the following report of the Medical College for the year 1928–29.

The resignation of Dr. Walter L. Niles as Dean became effective on July 1st, 1928, after ten years of service of great value to the University. Dr. Niles has been very helpful in initiating me into the office which he has filled with such splendid judgment, widsom, and fine spirit. At his request I delivered the address of welcome to the students on October first.

The Session opened with 257 students of which 37 were women. During the year one student was admitted to late registration to the fourth year, two students withdrew on account of ill health, and five, all in the first year class, were dropped from the School at the end of the Session because of poor scholarship.

Sixty students have been accepted for admission next October, 37 to the College in New York and 23 to the Ithaca Division. There has been a somewhat larger number of applicants than previously, numbering about 400.

During the past year no radical changes have been made in the instruction or organization of the College. Reports from the heads of departments have been received and are on file in the office of the Dean. They express a sense of general satisfaction and call for no detailed comments at this time.

The death of Mr. Hugh E. Morrow, Instructor in Chemistry, which occurred in June, must be recorded with much regret. His death is the only such loss that has occurred in the teaching staff during the year.

By resignation the Faculty has lost Dr. Robert Chambers, Professor of Microscopic Anatomy, who has accepted an important professorship in another University, and Dr. Harold C. Bailey, Associate Professor of Obstetrics, who has been forced to retire from teaching because of ill-health. Dr. Bailey retires after many years of valuable service to the Medical College and his resignation was accepted with much regret.

A number of additions have been made to the Faculty. Dr. William L. Russell, General Psychiatric Director of the New York Hospital, has been appointed Professor of Psychiatry following the resignation of Dr. George Kirby, and has given much thought to the work of the department, as well as to the future development of psychiatry. Dr. Mortimer Raynor, Medical Director of Bloomingdale Hospital, has been appointed Professor of Clinical Psychiatry, and several changes in the staff of instruction have been made under Dr. Russell's direction.

In the Department of Pathology, Dr. Lawrence W. Smith has been called from Harvard University as Assistant Professor and Dr. Fred W. Stewart, formerly of the Rockefeller Institute Staff has been appointed Associate.

Dr. Jose Nonidez has been appointed as Assistant Professor of Anatomy and Dr. Morton C. Kahn as Assistant Professor of Public Health and Preventive Medicine.

Coming to the Medical College as one unfamiliar with its Faculty and methods, I wish to say that during the year I have gained a very high opinion both of the personnel of the teaching staff and of the spirit of the College as a whole. I have

found a finely coordinated group of earnest teachers and workers, and I have been very well impressed by the student body. Although the facilities of the College leave much to be desired, especially from the point of view of the scattered and somewhat uncoordinated clinical facilities, many difficulties are overcome by the fine spirit of the staff and the enthusiasm of the student body. It is my feeling that much credit for this favorable state of affairs must be given to Dr. Niles, who has led the College through difficult years of uncertainty and of restricted financial support. I am impressed with the fact that the College presents an unusually favorable condition as a foundation for the future development of the New York Hospital-Cornell Medical College Association. It is with much pleasure that I record the remarkable cordiality and cooperation with which I have been received by the Faculty. I have found almost without exception a desire to sink personal welfare for the good of the College, and a splendid exhibition of sterling loyalty to the ideals that seem to have been fostered in the Medical College since its foundation.

A large part of my time and thought have necessarily been given to the great undertaking of the association of the Medical College with the New York Hospital. Plans for the future organization have been formulated and submitted to the Joint Administrative Board, and the planning of the buildings has progressed in a most satisfactory manner. After more than two years of constant work, the architects, Coolidge, Shepley, Bulfinch and Abbott, have brought the plans to a state so that construction can begin. Ground was formally broken with appropriate ceremonies, on June 17, 1929. The work of excavation is now under way. It is estimated that construction will require about two years and nine months, so that the plant should be ready for occupancy by the Fall of 1932.

I have followed and collaborated in the planning of all details and we have also had as advisers Dr. Howell, Superintendent of the New York Hospital, and representatives of the firm of Marc Eidlitz and Sons, which has been selected to construct the plant. Recently Dr. Winford H. Smith, Director of the Johns Hopkins Hospital has been engaged as a consultant in hospital design. During the period of construction many problems will have to be faced in order to bring about a well-ordered organization to carry on the manifold activities that the new Association will require. At the present time the future appears bright with promise and opportunity.

The improvement in the financial status of the Medical College, through funds received from the General Education Board and from the estate of Payne Whitney should allow the College to be conducted on a sound financial basis, as the current funds are sufficient, not only to meet the present budget, but to set aside a sum each year in order to reimburse the general University funds for payments made in recent years to meet the deficits of the College.

Recently an offer of $25,000 has been made by an unknown donor through Dr. Milton Rosenblüth to be expended for medical research during the coming year. This offer has been accepted and plans for its expenditure have been formulated by a special Committee appointed by action of the Committee on Educational Policy.

Other gifts are those of Mrs. de Heredia of $5,000 for the promotion of the study of industrial diseases and of Mrs. Given of $6,000 for surgical research. The former gift has been accepted to form the W. Gilman Thompson Fund. Grants have also been made by the National Research Council and by the National Tuberculosis Association for the support of research in several departments.

The Cornell Pay Clinic, under the direction of Dr. Walter C. Klotz, has had a successful year both from the professional and financial standpoint and the Clinic continues to be of much value as a teaching asset as well as fulfilling a useful service to society.

G. CANBY ROBINSON,
Director of the New York Hospital-
Cornell Medical College Association.

APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA DIVISION OF THE MEDICAL COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith the report of the Ithaca Division of the Medical College for the College year 1928–29.

This year, for the first time, the number of students admitted to the Medical College was restricted to sixty-five, of whom twenty-six were accepted in Ithaca. Of these, eleven were seniors in the College of Arts and Sciences of Cornell University and one a senior in the College of Arts and Letters of the University of California. Of the fourteen other students in the class, four were graduates of the College of Arts and Sciences of Cornell University and ten were graduates of eight other institutions. Four of the twenty-six students registered in Ithaca were women. The same high standards have been maintained in selecting the students as in previous years with the result that only one student was dropped for poor scholastic work. In December one student withdrew because of injuries received in an automobile accident and another because of financial reverses in the family. In June, after the completion of all his work, one student died as the result of injuries received in an automobile accident. The class which will go on with the second year in New York will be still further decreased since three students are transferring to other medical schools where, for them, the cost of living will be less.

The method of admitting students to the Ithaca Division of the College has been slightly changed this year. While heretofore there has been very close cooperation between the two divisions of the College through conference and correspondence, this year the final decision on all applicants, either for the New York or the Ithaca Division of the College, has been made by the Committee on Admissions of the New York Division. This is right and proper since the students admitted at Ithaca spend three fourths of their time in New York. The plan has worked most satisfactorily and advantageously and should help to weld together even more closely than ever the two divisions of the College.

In addition to the courses given for medical students, the Faculty of the Medical College at Ithaca gives a considerable number of courses in the College of Arts and Sciences and other Colleges. In the department of Anatomy there are courses on the structure of the human body, anatomical methods, anatomy for artists, comparative neurology, cerebral mechanisms, besides advanced and research work in anatomy and neurology. These courses were taken by 119 students this year.

In the department of Histology and Embryology courses are offered on the tissues, (histology and histogensis), the organs, (histology and development), vertebrate embryology, histology and histological methods, advanced histology and embryology, experimental embryology, the theory of development, microscopy and histology for veterinary students, embryology for veterinary students. In these courses there were 357 registrations this year.

In the department of Physiology there are courses in general physiology, applied physiology, physiology and biophysics of radiation, general physiology laboratory, experimental analysis of behavior, physiology of respiration, vital dynamics and the circulation, as well as advanced, research and seminary work. These courses were taken by 216 students this year.

In the department of Biochemistry, courses were given in elementary biochemistry, elementary biochemistry laboratory, advanced biochemistry lectures, besides advanced and research work. This year there were 170 students registered in these courses. In addition to the above courses each department gives courses primarily for medical students, and a limited number of advanced and graduate students are also permitted to take these courses.

In all the departments of the College there has been an increased number of students applying for graduate work, and while these students are always welcome, the number applying is in some cases taxing almost to the limit our facilities. This year there were 79 majors or minors being taken by graduate students with the professors in the Medical College. These students are attracted by the reputation the professors have obtained through their own research work. It is important, therefore, that we should increase the senior staff of the College as rapidly as possible so that these men may find leisure to continue their investigations and in addition have time for both undergraduate and graduate instruction. While the report of the librarian gives some idea of the research completed and published it does not give a picture of the work in progress.

In the department of Anatomy, since the instruction is largely in the laboratory, the number of hours of teaching required of the professors and instructors is far too great. Trained teachers for anatomy are hard to secure and the younger instructors after two or three years training are attracted to better paying positions in other institutions. Within limits this is as it should be and is an advantage to any live department. The courses in anatomy for medical students have remained as in recent years and the work has been most satisfactory. The quality of the work in the courses for students in the Arts College has been better than usual this year. In Neurology the most excellent text book on Comparative Neurology, by Assistant Professor James W. Papez, which came from the press in February, has had a decidedly stimulating effect on all the courses in this subject. The needs of the department have been fully stated in previous reports. The most urgent of these is an additional preparator.

The department of Histology and Embryology has reported 27 more registrations this year than last. Instruction has proceeded normally in all courses. What has been said in connection with the great demands on the teaching staff in connection with the department of Anatomy, applies also to the department of Histology and Embryology. In both of these departments, since the courses are mostly advanced and highly technical, the heavy teaching load cannot be entirely relieved by young assistants but requires more trained specialists. Professor Kingsbury reports that the course in experimental embryology, which is being developed by Assistant Professor Adelmann, has been most satisfactory. It is sincerely hoped that this important line of work which is not provided elsewhere in the University may be further developed and that the special assistance needed for this difficult and significant work may be secured. The most pressing needs of the department are more space and better provision for the care of the laboratory and experimental animals at Stimson Hall, and more adequate, unskilled, non-technical assistance, and clerical help to relieve the head of the department.

In the department of Physiology and Biochemistry, the temporary organization effected last year with Professor Sumner acting as chairman of the group and also directly responsible for the Division of Biochemistry and Assistant Professor Liddell in immediate charge of Physiology has worked satisfactorily. In the Division of Physiology the plan of instruction for medical students remains substantially as heretofore. For beginning students in Arts a new laboratory course in General Physiology will be given next year to replace the elementary laboratory course formerly given in the department. The cooperative plan of instruction in Neuro-anatomy and Neuro-physiology, particularly for graduates, is being worked out to meet the needs especially of the students in psychology. The research in Physiology is being broadened and extended with very satisfactory results. The sound-proof laboratories at the Physiological Field Station and at Stimson Hall and a similar equipment installed by the division of Psychology in the department of Rural Education give us at Cornell the only research center in America for the study of conditioned reflexes. In this connection and in connection with the other research work in the department of Physiology I wish to stress again the importance of the Physiological Field Station with its quiet, natural surroundings, permitting the maintenance of all experimental animals under normal conditions. The important investigations in tissue respiration and endocrine functions are being continued, as well as the studies of the effect of ultraviolet light on growth conditions.

In the division of Biochemistry, the work of the year has progressed satisfactorily with about the usual number of students. An increasing number of graduate students are being attracted to the laboratory. Professor Sumner's work on urease is progressing favorably with constantly widening significance. He has been granted a leave of absence for the first term of the academic year 1929–30 which he plans to spend in Stockholm in the laboratory of Professor Hans von Euler.

Stimson Hall continues to be used almost to capacity,—in fact many departments are greatly overcrowded. The use of the lecture rooms by the department of Hygiene leaves practically no vacant morning hours and the constantly increasing number of graduate students is crowding the laboratories.

The Van Cleef Memorial Library has shown even more strikingly than in any previous year the advantage of a special library in a limited group of subjects both for instruction and for research. Thanks to the generosity of Mr. Mynderse Van Cleef the endowment has been increased until now it amounts to $21,000. The income from this has made it possible for the Library to procure some large, expensive books much needed, especially in the departments of Anatomy and Biochemistry, and to still leave sufficient funds for the ordinary books and periodicals. The usefulness of the Library has been still further increased by placing in the College Office reserve books for the use of students in their regular courses to be drawn and used in the open reading room. This enables the Library proper to restrict its readers to the research workers as originally planned. There have been added to the Library this year by purchase and donation 100 volumes. In addition 118 volumes of periodicals have been bought or donated. The total number of volumes now belonging to the Library is over 3,000. Besides this, there are kept on deposit from the University Library over 500 additional books. Each year the Van Cleef Memorial Library becomes more indispensable to the research workers in Stimson Hall.

Both the extent and the character of the graduate and undergraduate teaching of the departments of the Medical College at Ithaca as outlined above indicate only to a slight extent the broad contacts which the College maintains with many other departments of the University. That the opportunities for broadening and deepening the influence of these departments upon all the work in the biological, physiological, chemical and allied fields will continue to grow is our firm belief. That the tremendous developments that are on the horizon for our Medical College in New York may more adequately influence the work of the whole University demands that these fundamental medical sciences in the Medical College at Ithaca should receive whole-hearted support. Our unbounded faith in the future of the University and in the wisdom of its guiding officers makes it seem certain that this support to meet our opportunities and our obligations will be forthcoming.

That the past year has been so successful is due not only to the enthusiastic and faithful service and cooperation of the staff but as well to the wise council and advice that you have so freely given us.

ABRAM T. KERR,
Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DEAN OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR: I have the honor to submit herewith a report of the New York State Veterinary College for the fiscal year 1928–29.

The work of the Veterinary College has progressed in a satisfactory manner. A few minor changes have been made in the curriculum. The entering class was large and unusually well prepared. The clinical material for teaching practical medicine and surgery has been abundant in quantity and excellent in quality. The Diagnosis Laboratory has continued to render valuable service to the veterinarians and live stock owners of the State. The researches on animal diseases have increased in number and in every instance encouraging progress has been made. A request to the legislature for a larger appropriation for this purpose was granted. The demand for trained veterinarians is increasing steadily, which is a sure indication that the value of veterinary medicine is being recognized more fully, and that the larger opportunities for its service are being appreciated.

There are 136 undergraduate students enrolled, distributed by classes as follows: 48 freshmen; 35 sophomores; 25 juniors; 28 seniors. There are four graduate students and two in the Practitioners' course. This is the largest registration in any year since the World War, and the third largest in the history of the college. The available clinical material sets the limit to the number of students that can be properly taught. This has been reached for the entering class. There were 222 students from other colleges of the University—44 of whom were in the Graduate School—who received a total of 487 university hours instruction in this college. The subjects taken were bacteriology, pathology, physiology, and farriery. Two special courses, one on the nature of disease and one on horseshoeing, were given for students in the College of Agriculture. Reciprocally, veterinary students receive instruction in animal husbandry, botany, chemistry, dairy, histology, and zoology in their respective departments in other colleges of the university.

The faculty is confronted with the practical problem of adjusting its curriculum and directing its instruction toward developing greater facility in its students and alumni to adjust themselves to the changes that are taking place in general practice, live stock, sanitary and public health work. It is believed that the subjects that give the wisest direction of professional activities after graduation comprise the best course of study. There is not agreement that the time has come when all the interests involved would be benefited by increasing the entrance requirements or lengthening the professional course. However, the rapidly growing number of college trained men who are taking veterinary medicine is an omen of future advancement.

The Diagnosis Laboratory met a serious loss in the resignation of Dr. Carpenter. Again the college, the veterinary profession and the live stock industry of the State suffered because one who became proficient in technical work could not be retained. The college cannot hope to function at its best so long as its resources are expended in training men for other institutions or states. Our live stock interests are waiting patiently for the larger benefits to be derived from continuous service of experienced men. A vital industry with an invested capital approximating $250,000,000 is entitled to the services of trained men. A new and competent man is being developed for the work. In addition to the examinations required for diagnosis, much practical work is being done in preparing autogenous bacterins for practitioners and checking the results of their use. The number of agglutination tests for Bang abortion disease is growing steadily. The economic value and the sanitary significance of the laboratory have become established and the granting of appropriations sufficient to enable it to become an independent department in the college is only a matter of time.

The special researches authorized by the legislature on Bang abortion disease in cattle, Johne's disease, the cause of tuberculin reaction, and poultry diseases, have continued with gratifying results. The application of knowledge of the etiology of Bang abortion disease in a plan for its control is developing a procedure by which this disease, the greatest scourge of cattle, can be eliminated with the aid of veterinary practitioners and the diagnosis laboratory without serious loss to the owners. The studies on Johne's disease and tuberculin reaction have been formulated in twelve distinct projects, all of which are in progress, and considerable data have been obtained. The work on poultry diseases has been continued, both at Ithaca and at Farmingdale, and efforts to interest veterinary practitioners in the diseases of poultry have been successful in that many of them are now helping poultry men in a most satisfactory manner.

In addition to the special researches, other studies are in progress. Attention is called to the work on the nature of "milk fever" by the Department of Physiology in which it has been found that there is a deficiency of phosphates in the blood of cows suffering from that disease. While there is a satisfactory treatment, the maximum benefit will come when its cause is known and a practical means of prevention formulated. The report of the College to the legislature will contain full details of all the research work.

Much of the investigation on animal diseases has fallen naturally to the Department of Pathology and Bacteriology. This, together with the large number of students from other colleges who are studying bacteriology and pathology, is placing a very heavy burden on the members of the Department. I have taught two courses and aided in directing the poultry disease investigation both at Ithaca and Farmingdale. On my retirement in July this work will be added to the duties of the existing staff of the Department. Because of its multiple duties, it is earnestly recommended that at least one additional assistant professor and one instructor be added to its staff. Further, the research work, teaching parasitology, and graduate students require much more space than the present quarters provide. For these reasons it is recommended that the new laboratory building requested annually for several years should be provided.

The work on poultry diseases has been not only successful from the research point of view, but has provided this rapidly growing industry with professional medical assistance in many sections of the State. Further, it has made it possible for any poultryman in the State to have his flock tested for pullorum infection for a very reasonable fee. The laboratories at the college and at Farmingdale are supervising the tests of practitioners who have taken up the work, supplying them with antigen, and in other ways assisting those who are giving personal attention to the prevention or treatment of poultry diseases. The diagnosis work has occupied much time, but it has given an understanding of the disease situation that otherwise could not have been obtained, and which is necessary to institute preventive measures.

The annual two-day conference for veterinarians was held in January. It was largely attended and the interest shown was greater than at any previous meeting. This conference, the practitioners' course, and the personal aid given by members of the faculty to practitioners, constitute a most effective extension service. We are living in an age of high specialization, and professional assistance can be utilized properly only by those who are familiar with the symptom-complex of disease. Extending this principle, the faculty is cooperating with all live stock organizations possible in an effort to teach owners how to keep their animals well. When disease appears or accidents occur the services of practitioners are required.

The endowment of the Flower Veterinary Library has been increased by approximately $8,000 through the efforts of Dr. Frank H. Miller, one of the state trustees. The library endowment, now $19,000, should be at least $25,000, the income from which would be adequate for its needs for many years to come. Dr. Miller has secured an endowment for a $50.00 prize to be awarded to a senior for proficiency in small animal diseases.

The Legislature of 1929 made an appropriation of $178,955 for the maintenance of the college for the fiscal year 1929–30. This is an increase of $16,735 over that

for 1928–29. Of this, $11,000 is for research and $3,900 for special repairs on James Law Hall. Unfortunately, there were no increases in salaries for the teaching staff. After thirty-three years of struggle the college has become articulated with professional, state, and civic organizations that function for a more efficient veterinary service, a prosperous animal husbandry, and better public health. Its activities have enlarged and it is obvious that greater facilities are required to continue and advance the work. The immediate needs may be enumerated as follows:

1. Salaries should be placed on a basis commensurate with the preparation required and the service expected of teachers and research workers. Otherwise the best qualified men for the positions cannot be secured or retained.

2. The teaching force should be increased by three professors, one in parasitology, one in physiology, and one in obstetrics; two assistant professors, one in bacteriology and one in bio-chemistry; two instructors, one in anatomy and one in pathology; a curator of the museum, and much needed help in several departments.

3. A new laboratory building for bacteriology, pathology, parasitology, and diagnosis should be provided as soon as possible. The present quarters are inadequate for the research work on animal diseases that is required and for teaching. The college does not have space and facilities for advanced and graduate students to work or for the special researches required and under way.

The above recommendations are more than justified by the urgent needs of the animal husbandry of the State. Their cost would be negligible in comparison with the benefits and savings that would accrue to the State from the results that should be obtained.

I wish to acknowledge the splendid cooperation of the members of the faculty in the conduct of the college work. Without this united effort and the loyalty of the alumni, the present high standing of the college and its good reputation could not be attained.

V. A. MOORE,
Dean of the New York State Veterinary College.

APPENDIX VIII

REPORT OF THE DEAN OF THE NEW YORK STATE COLLEGE OF AGRICULTURE

To the President of the University:

SIR: I have the honor to present herewith a report of the New York State College of Agriculture and of the Cornell University Agricultural Experiment Station for the year 1928–29.

In a number of respects the past year has been one of rather unusual importance in the progress of these institutions. The educational offerings have undergone fresh scrutiny, and there have been established curricula of collegiate level but of one and two years in length in certain fields of more immediate practical interest to the agricultural industry; there has been a careful casting-up of all of the research in progress, it has been more definitely defined and recorded, and there has been such readjustment in specific projects as will make for a better-integrated program; the legislative enactments not only made provision for a number of important new developments, but also made possible certain very greatly needed salary adjustments for the teaching and scientific staffs; the extension service reports a noteworthy increase in the number of direct educational contacts made throughout the State; and on the physical side, certain buildings have undergone needed renovation and redecoration, the erection of the plant-science building has progressed steadily, and several long-desired additions

to or improvements in the buildings and grounds have been inaugurated. Collectively these several matters have contributed toward a generally strengthened situation.

CHANGES IN THE COLLEGE STAFF

On May 6, 1929, Doctor Alvin Casey Beal, Professor of Floriculture, was removed by death. He had been actively engaged in the performance of his regular duties until within a few hours of his death. Doctor Beal came to Cornell University in 1909, and received here the degree of doctor of philosophy in 1911. He had remained in the service of the College from that time, chiefly as an investigator in certain phases of his subject.

Professor Beal was greatly interested in the historical aspects of his science. He devoted years to a monographic study of the types and varieties of the sweet pea and of the botany, history, and evolution of the gladiolus. He had also made similar studies of the rose and the iris and had accumulated a great amount of data on these plants. He was a recognized authority on these groups. In his death, floriculture has lost a zealous investigator, and members of the Faculty a loyal and faithful colleague.

During the year covered by this report there were losses of certain valued members from the staff. Doctor Walter V. Price, Professor of Dairy Industry, resigned on February 2, 1929, to accept a post at the University of Wisconsin. Assistant Professor Thomas J. McInerney, also of the Department of Dairy Industry, left at the close of the academic year and has entered commercial work. Charles K. Powell, Assistant Professor of Poultry Husbandry, resigned on June 30, 1929, to continue in commercial work in which he had been engaged for two years previously on leave of absence from the university. Doctor I. F. Hall, Extension Assistant Professor of Farm Management, resigned on September 30, 1928, to accept a post at a mid-western university.

Effective October 1, 1928, Frank B. Morrison resigned as Director of the Experiment Stations, resident at Geneva, to become Professor of Animal Husbandry and head of the department in the State College of Agriculture at Ithaca. Professor Morrison's qualifications and experience in animal husbandry and in administration were noted in the report for last year, in connection with his appointment as Director of the State and Cornell Experiment Stations.

On October 1, 1928, Assistant Professor J. P. Porter, who for several years had conducted the extension work of the College in landscape improvement, was transferred to resident instructional duties in plant design, a new development provided by a special legislative grant. He was succeeded by Donald J. Bushey, who was appointed Extension Assistant Professor of Ornamental Horticulture, effective October 1, 1928. Mr. Bushey is a graduate of Beloit College and the Michigan Agricultural College. Before coming to New York, he had been engaged successfully in professional work in his field in Illinois, Wisconsin, Ohio, and Kansas.

Doctor James E. Knott, for the past three years Professor of Vegetable Gardening at the Pennsylvania State College, was appointed Research Assistant Professor in the Department of Vegetable Gardening, effective July 1, 1929, for the purpose of inaugurating research on vegetable-production problems on muck lands provided for in a special appropriation made by the Legislature of 1929. Doctor Knott was an honors graduate of Rhode Island State College in 1920, and subsequently received master's and doctor's degrees at Cornell University. His scholastic preparation and both his teaching and his practical experience have qualified him particularly for the type of work in which he is now to engage.

Effective August 1, 1929, Doctor Allan Goodrich Newhall was appointed Research Assistant Professor of Plant Pathology for the purpose of undertaking the investigation of diseases of muck crops on a special appropriation for that purpose made by the Legislature of 1929. Doctor Newhall received his bachelor's degree from the University of Minnesota and his doctor's degree at Cornell University. For a number of years he has worked on the diseases of muck crops. From April, 1925, to the time of his appointment here he served as Assistant Plant Pathologist at the Ohio Agricultural Experiment Station.

Frank Forrest Hill became Assistant Professor of Rural Economy, effective July 1, 1929. He was graduated from the University of Saskatchewan, followed by advanced work at Cornell University. Since 1926 he has been engaged at the Federal Land Bank at Springfield, during the latter part of this period having served as Comptroller of the bank. His special work will be investigation of economic problems of rural government provided for by the Legislature of 1929.

There was added to the Department of Animal Husbandry as Extension Assistant Professor, S. J. Brownell, recently Assistant Professor at Pennsylvania State College. Mr. Brownell is a graduate of the Michigan Agricultural College with specialization in dairying and bacteriology, and with advanced work both at the Michigan and at the Pennsylvania State College. Previous to his present appointment he had both research and extension experience in Michigan and in Pennsylvania.

The staff of the College has shown a steady growth over a considerable period, in the earlier years because of the rapid increase in the number of students, and later because of the developing extension service and of the greatly increased demands for the results of research. During the past year the total number of individuals under appointment at any time during the year, for incidental, part-time, or full-time service, was 306. They constituted 251.6 full-time man equivalents. They are classified in the following table by rank and by major activities:

	Under-graduate instruction	Graduate instruction	Research	Extension	Administration	Other public service	Total
Professors	30	13	32	18	8	1	102
Assistant Professors	14	1	17	14	1	–	47
Instructors	37	—	32	17	–	–	86
Assistants	41	—	23	6	1	–	71
Total	122	14	104	55	10	1	306

During the past two years the attempt has been made to obtain an approximation of the proportion of time devoted by staff members to the various kinds of work for which the College is legally responsible. This distribution for the entire foregoing staff for the year 1928–29 closely approximated 40 per cent given to teaching, 32 per cent to research, and 21 per cent to the extension service.

THE ENROLLMENT FOR REGULAR AND SPECIAL INSTRUCTION

The record of student enrollment for the years 1927–28 and 1928–29 follows:

	1927–28		1928–29	
Freshmen		199		194
Sophomores		167		142
Juniors		167		156
Seniors		158		160
		691		652
Specials		24		31
Winter-course students:				
Agriculture (general)	55		73	
Dairy Industry	36		48	
Poultry Husbandry	12		17	
Fruit Growing	3		6	
Flower Growing	23		9	
Vegetable Gardening	4		1	
Rural Engineering	9		3	
		142		157
Graduate students		286		259
Summer-school students		725		676
		1,868		1,775
Less number counted twice		101		98
		1,767		1,677

The short schools and informal meetings, in most of which the members of the faculty rendered service, brought to the campus a total of more than 10,000 persons during the year.

The declining number of students in agriculture since the war has been a matter of general concern in all agricultural colleges. Its main cause has uniformly been found in the depressed condition of agriculture, which acts doubly, in withdrawing the means of education from farm boys and in discouraging all young men from contemplating entrance to agricultural vocations.

The fluctuations of enrollment in this College follow fairly closely those for all the agricultural colleges collectively, and still more closely those of the larger and older institutions. Taking 1919–20 as a base, the combined enrollment of eleven leading colleges of agriculture declined to 90.9 per cent in 1921–22, 77.9 per cent in 1923–24, 68.2 per cent in 1925–26, and 66.8 per cent in 1927–28. For this College the corresponding percentages are 87.9, 74.9, 78.7, 69.3.

The records of the College show that from the opening of the University until 1923, of all entrants to the College 55 per cent completed their work for the degree. Of those entering in 1920–21, 1921–22, and 1922–23, 51.3 per cent took their degrees. This would seem to indicate that the forces that operate to keep young men from entering the College of Agriculture operate also in discouraging them from continuance after entrance. A recent study shows that change of mind as to vocation, financial troubles, and impaired health are the three most frequent causes of discontinuance.

COLLEGE COURSES OF LESS THAN FOUR YEARS DURATION

During the year the Faculty voted to establish a number of curricula of less than four years duration. This has long been considered as probably a wise step to take and present conditions have emphasized the need. The study of students leaving college, already referred to, showed that among farm boys financial difficulties were the preponderant reason for discontinuance. The first year or two of the four-years course as now organized is not the best preparation for those persons who discontinue their college studies but continue in farming. The Faculty has, therefore, organized curricula in dairy farming, poultry farming, fruit growing, and vegetable growing, to meet the needs of those who cannot plan to take more than one or two years of college work. The instruction will be strictly of college grade. Further curricula will be set up if there is a response to this effort. The present offerings are frankly experimental, and only experience can reveal the extent of the need for this type of work.

LEGISLATIVE APPROPRIATIONS

The gross increase in state appropriations for all purposes of the College and the Cornell Station, made by the Legislature of 1929 and largely applicable to the fiscal year 1929–30, was $200,088. This was distributed as follows:

Personal service, salary increases for existing staff		$ 14,850.00
Maintenance		
Equipment and supplies	$ 1,497.00	
Insurance	4,000.00	
	$ 5,497.00	$ 5,497.00
Special research items		
Muck-land investigations	19,200.00	
Potato-disease investigations	4,250.00	
Regional adjustment and development	5,000.00	
City markets	4,000.00	
Cooperative marketing	6,000.00	
Rural government	7,000.00	
Seed-potato stock	5,030.00	
Potato production and storage	4,000.00	
	$54,480.00	$ 54,480.00

Animal Husbandry expansion		
Maintenance and operation	$40,950.00	
Personal service	9,500.00	
Cow-testing-association work	3,600.00	
Construction and repairs	30,000.00	
	$84,050.00	$ 84,050.00
Printing	$10,000.00	$ 10,000.00
Editorial assistants	$ 2,000.00	$ 2,000.00
		$170,877.00
Deficiency items		
Printing	$10,000.00	
Traveling expenses	5,000.00	
Insurance	3,000.00	
Repairs, 1927–28	2,988.00	
Repairs, 1928–29	6,000.00	
Contingent	2,223.00	
	$29,211.00	$ 29,211.00
		$200,088.00

The increase for salaries for the existing staff, while highly appreciated, was yet inadequate. Some relief was afforded, however, by the form in which the appropriations were made, giving the administration of the College freedom for adjustment such as has not been possible for many years. In recognition of the reduction in the number of four-years students and other factors, some reductions in staff were effected, thus releasing funds for further salary increases. Furthermore, the trustees of the University, on the recommendation of the President and the Dean of Agriculture, transferred from the College of Agriculture to the College of Arts and Sciences the major staff for the work in zoology. The assumption of this charge on the incomes of the endowed colleges released additional funds for the general purposes of the State College of Agriculture. In total, therefore, it was possible to effect a considerable number of significant increases in salaries, chiefly those of the teaching and scientific staffs.

Of great importance from the standpoint of the permanent welfare of the institution, was the privilege granted the University to advance the maximum salaries which may be attained in certain grades: for instructors, from $2400 to $3000; for assistant professors, from $3500 to $4500; for full professors and heads of departments, from $5000 and $6000, respectively, to $7500 as an ultimate goal for the more productive, responsible, and efficient members of the staff, with a number of immediate promotions toward these higher levels; and recognition of the fact that it will occasionally be necessary for the College to pay even higher salaries, up to $10,000. The establishment of a policy to gradually advance deserving teachers and investigators to the higher levels of compensation is unqualifiedly the most necessary matter confronting the institution; it is the outstanding means by which the authorities in state government can promote a greater service through the College; and it will constitute sound economy in the retention and stimulation of the more essential scientists and teachers and in freeing them to devote their full energies to their teaching and research.

The Agricultural Advisory Commission appointed by Governor Roosevelt voluntarily interested itself in the needs for augmented agricultural research, and during the past year gave attention to certain matters which were immediately pressing, and with respect to which farmers have for some time been voicing earnest demands. Among these more urgent needs were the following: research assistance to muck-land farmers, of whom there are large numbers in the State, on their soil problems and on the diseases and the production requirements of muck-grown crops; increased research on the many diseases of the potato, a crop in the production of which New York commonly leads the country, and on the

further development of foundation seed-potato stock and the production and storage problems of potato growers; extension of service to farmers in their individual and regional readjustments in types of agriculture, that is, in types of crops and animals produced, to enable them more wisely and speedily to effect the changes forced upon them by the local and the national modifications in the production, transportation, and marketing of farm products since the war; investigation of the possible development or expansion of public city markets and of cooperative marketing, in both of which there has been a mounting interest in recent years; and an economic study of the structure and processes of local rural government. The Commission recommended that modest financial provision be made in each of these several fields of research.

At the last census, New York ranked sixth among all the States in this country in the value of live stock products, and second in the value of dairy products. The dairy industry is by a wide margin the leading agricultural industry in New York. The live stock interests have therefore been concerned as to the educational and research service which the State is rendering them through this institution. In furtherance of this interest, a committee widely representative of the varied live stock groups in the State was organized during the year to cooperate with the State College of Agriculture and its agricultural experiment station in studying its present service and the needs of the State for various types of service, and in determining a sound program of development which will bring the facilities and personnel of the State College to a point where a greatly increased service may be rendered. After much careful deliberation, a program of expansion was formulated. One part of this, relating to the financial requirements to enable greater utilization of the existing facilities of the College, was put forward for immediate legislative attention, and the remainder, involving more extended study and larger financial provision, was held for presentation to the Legislature of 1930. The first section involved new legislative appropriations in the amount of $84,050, of which $30,000 was for construction and repairs and therefore not a continuing appropriation. The live stock committee presented its recommendations to the Agricultural Advisory Commission appointed by the Governor and received its cooperation in forwarding this program.

Governor Franklin D. Roosevelt accepted the several proposals of the Agricultural Advisory Commission and of the live stock committee and recommended them to the Legislature of 1929 in a special message. The complete cooperation of the financial and agricultural leaders in the Legislature resulted in the prompt passage of the bills carrying the needed appropriations. The service of the College to the State as a whole, and more especially to farmers, will be notably strengthened by these very welcome additions.

Mention must also be made of the relief which the special appropriations for increased editorial assistance and printing have brought. For a number of years the amount of important extension and research material offered for publication, and the demand for bulletins, have both greatly exceeded the resources of the College. Editions were small and soon exhausted, manuscripts were long delayed in publication, and much material resulting from the work of the College, particularly in research, had to be diverted to scientific journals and other media of publication. While the needs of the College are not yet wholly met, it has been possible to move many accumulated manuscripts and to expedite editorial and press work on all which can be printed from funds available.

The College is highly appreciative of the new lines of work which have been added. It naturally welcomes the opportunity to broaden its service to the State and to advance research in additional fields which it knows to be important. While there are places in which still further expansion of staff would be desirable, and more especially in the supporting operative groups so as to release the time of the more highly paid teaching and scientific staffs from the performance of many routine duties capable of being handled by relatively inexpensive labor, it is clearly in the interests of both efficiency and economy that better support of the existing personnel shall have precedence over proposals for expansion of fields of work. The highroad to efficient personnel, to the retention of the ablest and the replacement of others with persons of greater ability and therefore of

greater value to the public, is adequately to compensate and maintain the forces already provided. Of equal concern with the matter of salaries, is the difficulty now experienced in utilizing effectively the abilities available because of lack of funds for equipment, supplies, travel, and similar essentials for their productive occupation. Attention has therefore been drawn to the paramount needs of the existing organization, which should have first consideration in any additions to the budget.

BUILDINGS AND GROUNDS IMPROVEMENTS

From a balance of funds available from an earlier state appropriation for the general development of the State College of Agriculture in accordance with a plan approved by the State Architect, authorization has been obtained, and the detailed plans and estimates approved by the State Architect, for several greatly needed improvements, to be carried through during the summer and autumn of 1929. From the standpoint of the general comfort of the students and staff and the thousands of visitors to the College annually, the construction of a thirty-foot concrete highway, with curbing, from the west boundary of the College to the dairy industry building near the east boundary of the campus, along the main thoroughfare in front of the college buildings, ranks first in importance. The University has undertaken, from its own funds, to build a connecting link from this piece to the hard-surface roads on the main university campus, thus providing an excellent approach to the state college buildings. While this work is being done, the six-foot concrete sidewalk along this same highway will be completed.

When the College submitted to the state authorities in 1920 its general plan for development, there was included a request for a special building to provide animal-nutrition-research laboratories. With the change in the character of the dairy industry in New York, accompanied by a great decline in the manufacture of butter and cheese, not all of the laboratories in the dairy building are now required for their original purposes. By rearrangement of some of these laboratories and certain structural changes, it has been found possible to house the animal-nutrition-research laboratories in the dairy manufacturing building, which provides an admirable location for them. They will be adjacent to the animal husbandry building and the barns, and to the chemical and bacteriological facilities already available in the dairy building. By this readjustment, it will not be necessary for the State to grant the appropriation originally indicated for the nutrition laboratories.

Two greatly needed field buildings, a laboratory and work room at the teaching and experimental vegetable gardens and a machine storage and repair barn in the experimental orchards, are also provided. A small sum is being utilized for the construction of a culvert and storm drain, necessitated by the filling of a gully near the college barns with soil to be excavated when new buildings are erected. A substantial beginning in filling this gully has been made from the excavations for the plant science building. When completed it will mark a great improvement, making a somewhat extensive land area available where it is much needed, adjacent to the barns and the greenhouse range.

These several items involve expenditures approximating $115,000.

TEMPORARY FELLOWSHIPS AND INVESTIGATORSHIPS

The following temporary industrial fellowships and investigatorships were established during the year 1928–29:

By the N. V. Potash Export My, a fellowship for the study of the effects of potash on properties of muck or peat soils and on plant growth. This fellowship extends for a period of three years beginning July 1, 1928, and provides that the donor shall pay the University $2400 the first year and $1700 each for the second and third years.

By the American Dry Milk Institute, a renewal for the year 1928–29 of its previously existing investigatorship to enable the further study of the value of dried skimmed milk in mixtures for the manufacture of ice cream. The investigatorship carries a grant of $2000.

By the Grange-League-Federation Exchange, Inc., an investigatorship for the purpose of promoting a study of the vitamin content, both A and D, of red cod-liver oil of American origin. The investigatorship extended for a period of three months beginning July 1, 1928, and carried a grant of $600.

By the American Rose Society, a fellowship for the investigation of the diseases of roses, with special reference to methods of control. This fellowship, which extends for a period of two years from April 1, 1929, carries an annual grant from the Society to Cornell University of $1250 a year.

By the Nassau County Farm Bureau Association, a fellowship for the study of the diseases of truck crops. For the maintenance of this fellowship, which continues for a period of two years from April 1, 1929, the Association pays to the University $1200 a year.

Grants of this nature are especially prized, as they serve the combined purpose of assisting graduate students financially while engaged in their studies, and make possible research on problems of direct economic importance, commonly resulting in discoveries of immediate practical application.

RESEARCH IN THE COLLEGE AND THE CORNELL EXPERIMENT STATION

During the past year, the experimental and research undertakings have received careful reexamination and in some instances redirection. Effort has been made particularly to coordinate the work in certain fields with that in similar fields at the State Experiment Station at Geneva in order to accomplish the greatest service to the public. The faculty approved a proposal to place all research in the College of Agriculture and the Cornell Experiment Station on a written project basis, and copies of these project statements are now on file in the office of administration and in the offices of the several departments. This has made for increased clarity and definiteness of planning, it provides in one place an adequate record of all work in progress, and it shows the cost of each undertaking and the proportion of each individual's time going into research. These projects are to be revised annually. While such a record is of real value in any institution, it is particularly important in an institution deriving its support mainly from public funds.

A number of entirely new fields of research are made possible by the special appropriations of the 1929 Legislature. In addition, however, new investigations are constantly being entered upon as work on particular projects is brought to completion and the results made available to the public or to scientists elsewhere through publication. With several hundred pieces of research in progress at any time, it is clearly impossible here to deal with the special problems. Attention is therefore drawn to the annual report of the Cornell University Agricultural Experiment Station, separately published by the State, in which a somewhat extended discussion is given of the work in progress, the results obtained, and the publications issued during the year. It constitutes a notable record. Throughout the College the spirit of research is highly developed, and every encouragement is afforded its fullest development within the limits of the funds available. It is of central importance not only from the standpoint of the agricultural interests of New York, but with respect to the widest standing and influence of the College. The work is so planned as to encompass both problems of immediate economic importance to the agricultural industries and the rural population, and the more theoretical and fundamental aspects of agricultural science on which further progress in the fields of application depends. Contributions to knowledge and to practice steadily issue from the work.

THE EXTENSION SERVICE

In the extension teaching during the past year there has been a striking increase in the total amount of field work accomplished. This has been due in part to an increased demand from farmers and in part to progress in recent months in applying new combinations of teaching methods. Membership in the county farm bureau associations has increased about 10 per cent over figures for 1928. Enrollment in the boys' and girls' club work has shown an increase of about 17 per

cent, chiefly as a result of the addition of three counties and the resumption of club work in a fourth. There are now more than 20,000 farm boys and girls regularly participating in this educational work. Membership in the home bureau associations has remained about the same as in the previous year, and it retains its vigor and effectiveness. In most of the counties, the boards of supervisors have recognized the steady growth of this educational movement by granting increased appropriations. For a decade or longer the counties have provided nearly half the cost of maintaining the extension service.

The passage by the National Congress of the Capper-Ketcham Extension Act, which became effective a year ago, has made possible the placing of assistant agents in several counties where such additions were greatly needed. A multiple gain results. Increased teaching force in the counties relieves the college subject-matter specialists from much elementary instruction, enabling them to develop more advanced work; county agents brought together in regional groups can quickly be prepared for instruction of a seasonal character, which makes intensive methods of work applicable to a wider territory. Moreover, the county agent assistantships provide a valuable apprenticeship training for future county agents.

The value of the college bulletins as a means of teaching is becoming increasingly recognized. Much also is being accomplished through an effective information and news service and through the use of the "service letters," which are essentially bulletin abstracts sent to a selected list and carefully timed to reach the reader just when he needs the information. The "service letters" now reach a total of more than 100,000 a month, notwithstanding the fact that the mailing list is constantly revised.

The number of conventions, special-interest conferences, tours, visits of inspection, and other incidental meetings held at the College is steadily growing. Farm and Home Week continues to draw the leading farmers in New York and annually attracts many visitors from outside the State. Attendance at the Junior Field Days at the College in June has grown by such strides each year that steps will apparently have to be taken to limit the number. This is in many ways regrettable, as this event affords an opportunity for instruction at the College with its special facilities, it serves as a reward for achievement by boys and girls enrolled in the club work, and it brings to the University a selected group from which the Colleges of Agriculture and Home Economics may reasonably except to draw an increasing number of students in future years.

Since the passage of the federal Smith-Lever Act in 1914, extension teaching in agriculture and home economics has developed rapidly. The people of the State have gained confidence in this service and have come to depend greatly upon it. It has helped them financially. It has enriched their lives. It has beautified their homes. It has resulted in more healthy children and better-nourished families. There is one field, however, that has scarcely been touched. This is what might be termed the general cultural aspect, including work in the appreciation of good literature, the appreciation of music, an understanding of art, a knowledge of history and government, a knowledge of general science, and subjects of such nature. There is here presented a wide opportunity for service, and there is an oft-expressed desire for it. The extension forces have had long experience in the technical agricultural and home-economics fields, and the local organizations now cooperating with the College are prepared to act as vehicles for arranging educational gatherings in these cultural fields, should the opportunity be afforded. The administrative machinery at the College, already in existence, is available to manage the enterprise. The work could be started at once if a small amount of money were available to compensate and to pay the travel expenses of extension teachers in these fields either on part or on full time. It would be a notable extension of Cornell University's already widespread service to the State if public or private funds could be found for this work.

The extension service reaches every part of the State with a wide and varied range of offerings and methods. It has now become such a vital force in the rural life of the State that persons interested in the extramural work of the University will find it worthy of attention. A detailed description of the work and of results achieved during the year is available in the annual report of the College published by the State.

In concluding this report, Mr. President, may I record again the obligation under which the State College of Agriculture stands for the constant stimulation and wise guidance which you have rendered at all times in the direction of its affairs.

A. R. MANN,
Dean of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

To the President of the University:

SIR: I have the honor to submit herewith a report of the New York State Agricultural Experiment Station at Geneva for the year ended June 30, 1929.

THE RESEARCH PROGRAM

The function of the station, as its name implies, is chiefly one of research and experimentation on problems relating to agriculture, with a small amount of service work for the State Department of Agriculture and Markets as an aid to the enforcement of certain sections of the agricultural law. The scientific staff at the station now have under way one hundred and forty-seven specific projects of investigation, chosen with reference to the agricultural needs of the State. The progress which has been made on these undertakings, and the results achieved, are described at some length in a valuable report of the station published separately by the State. Copies of this larger report are available to any who may care to consult it.

It is clearly impracticable to discuss here the progress which has been made in these numerous important investigations; but it may be of interest to indicate briefly by title some of the studies under way, in order to suggest the nature of the current work.

In the Division of Agronomy, which has been concerned with soil problems in relation to plant nutrition, the lysimeter investigations having to do with the nitrogen balance in the soil when legume and non-legume rotations are used, and with the mineral relationships under these rotations, have been continued. This work will be brought to completion next year, at the end of a sixteen-years period, and the results will be summarized for publication. Thereafter the lysimeters will be used for metabolism studies with fruit trees. Studies to establish the relationships between the various environmental factors and the crop responses of various field-crop test plats, and the investigation of artificial manures, have been continued during the past year, but are now to be terminated.

Work on the production of high-nicotine tobaccos for use as insecticides, physiological and nutritional studies of fruit trees, studies of the use of fertilizers in nurseries, work on the maintenance of soil fertility in orchards, and studies of the biochemistry of soil organic matter have been advanced during the year.

The Division of Bacteriology has under way a wide range of projects, among which may be mentioned its studies of organisms commonly found in milk and other dairy products, the bacteria that survive and multiply during the commercial pasteurization of milk, sanitary milk control, the microscopic appearance of raw milk, the sanitary quality of powdered infant foods, the organisms found in the normal udder, the behavior of bacteria in certain soils of low productivity, the standardization of biological stains, the control of commercial cultures for the inoculation of legumes, and the spoilage of tomato products.

In the Division of Botany, a series of investigations of problems now confronting growers of horticultural crops is in progress. Sprouting tests of seed potatoes, to determine to what extent tubers affected with the leaf-roll disease can be detected by means of such tests and to devise practical farm methods for making them, have reached a point where publication will shortly result. Studies of the several virus diseases of black raspberries, of the injury to foliage caused by sulfur insecticides, of the premature defoliation of cherry trees which occasionally occurs and which was particularly severe in 1928, and of a number of the more troublesome diseases of canning crops and of the orchards in the Hudson River Valley, have gone forward. The pathologist at the Long Island vegetable research farm has continued his work on the control of various diseases of vegetable crops grown on the island.

The Seed-testing Laboratory of the Division of Agronomy, during 1928–29, analyzed 5306 samples of seeds of all kinds, in connection with the official inspection of seeds on the market by the State Department of Agriculture and Markets. This is largely a service function. In addition thereto, however, this laboratory, which holds high standing among institutions of its kind, carries a number of investigations of economic importance, such as studies of seed germination, studies of seed-borne diseases, field trials of seeds offered in the trade, and the like.

The Division of Chemistry has made notable advance in its work on the chemistry of casein, in connection with which the specialist in this field spent the past year in the laboratories of Doctor Svedberg, at Stockholm, in order to utilize certain equipment to be found only in this laboratory. The usual service to the State Department of Agriculture and Markets in connection with the fertilizer and feeding-stuff inspection, involving the analyses of 794 samples of fertilizers and 2265 samples of feeding-stuffs on the market, was maintained. Especially important are the researches on the chemistry of insecticides and fungicides, on which much work needs to be done.

The leading importance of the dairy industry in New York gives particular interest to the group of investigations under way in this field. These are more especially concerned with milk and manufactured dairy products, and include a number of aspects of the manufacture and the keeping qualities of ice cream and cheese, the handling of milk for the market, and the like. Incident thereto, the dairy herd at the station is utilized for certain management studies of economic interest. The Division of Dairying is charged also with the official inspection of glassware used for the Babcock test and certain bacteriological purposes, having inspected for the State Department of Agriculture and Markets a total of 51,174 pieces of such glassware during the year.

The experimental work in entomology has long been one of the conspicuous services of the station. The generous support which the State has afforded the station for studies in this field has made possible the organization of a broad research program. The nature of the work of the Division of Entomology may be sufficiently indicated by reference to the researches of more than usual interest in this State: the efficiency of certain insecticides in combating injurious insects, and the effects of various spray materials on the quality of fruit and the productiveness of apple trees; the control of the pear psylla; the control of a number of insect pests of crops grown for the canneries; cutworms infesting vineyards; cucumber beetles; the Colorado potato beetle; flea beetles; cauliflower insects; and others. Elsewhere in this report reference is made to new work on the destructive oriental peach moth and the European corn borer.

The station has gained perhaps its widest reputation from its contributions to horticulture, whether from the standpoint of the production of horticultural crops or from that of the control of the insect pests and the diseases of these crops. In the Division of Horticulture, the collection of fruits on the station grounds, always an object of wide interest, has been further extended during the year. For example, the already large collection of varieties of grapes was expanded by the addition of 114 varieties obtained from Russia, France, and northern Africa; and the nut plantings were increased by 47 new plantings of filberts, hickories, pecans, black walnuts, butternuts, and Persian walnuts. A leading activity in

this division is the breeding of new varieties of fruits. During the year approximately 2700 trees of apple, pear, cherry, nectarine, peach, and plum crosses were set out. Experiments on the pollination of fruit, on various aspects of grape growing at the Chautauqua Vineyard Station, on fruit production in the Hudson River Valley, on the testing and describing of all the varieties of vegetables in the trade looking toward the publication of a series of descriptive monographs on vegetables, on the improvement of crops grown for the canneries, both by breeding and selection and by better cultural practices, on the comparison of nursery seedling stocks, on methods of producing seedling fruit stocks, and on the propagation and storage of fruit stocks, have all been continued with vigor and have been productive of discoveries of much practical value to growers.

From this brief summary it will be apparent that the State Experiment Station at Geneva, with its outlying branches, has in progress a research program of wide dimensions and of significant practical import from the standpoint of the needs of agriculture.

STAFF CHANGES

On October 1, 1928, Dr. Ulysses Prentiss Hedrick was elected Director of the Station in succession to Director Frank B. Morrison, who on that date became Professor of Animal Husbandry and head of the department in the State College of Agriculture at Ithaca. The selection of Dr. Hedrick has proved a happy choice. Prepared in botany and horticulture at the Michigan Agricultural College, he gained professional experience in his field at the Oregon and Utah Agricultural Colleges, and later at the Michigan institution, where he was advanced to a professorship in horticulture. In 1905 he was called to the State Experiment Station at Geneva as Chief in Horticulture, which position he has held since that date. He is therefore eminently qualified, by reason of his knowledge of the agriculture, and more especially the horticulture, of New York, and of all phases of the work of the station, to guide the energies of this institution for the larger service of the State and the advancement of science in its relations with agriculture. Widely known through his publications in horticulture, broadly acquainted and informed through his travels in this country and abroad, experienced in scientific research and its application, he is a fitting successor to the distinguished directors who have preceded him.

At the close of the year Dr. P. J. Parrott, Chief in Entomology at the station since 1904 and one of the leaders in economic entomology in America, was appointed Vice-Director of the Station. He continues as Chief in Entomology also.

After thirty-eight years of service in charge of chemistry at the station, Dr. Lucius L. Van Slyke retired on February 1, 1929. Of Dr. Van Slyke's attainments in the scientific world, those who are competent to judge agree that he has long been one of the leaders in research in dairy chemistry. Due to his work, this station early attained and has long held prestige in the dairy field. He was productive in publications, some of which reported epoch-making discoveries in the fields covered. In addition to his researches in dairy chemistry, Dr. Van Slyke organized and long supervised the state service of chemical inspection of commercial fertilizers and feeding-stuffs. His methods in this work became models for similar work in other institutions.

W. P. Wheeler, Associate in Research (Animal Husbandry), retired on June 30, 1929. Mr. Wheeler had been at the station for a period of forty-one years. He was concerned chiefly with research in poultry husbandry, and he contributed much to the betterment of the poultry industry in the State.

During the year, Dr. L. K. Jones, Associate in Research (Botany), and James E. Mensching, Associate in Research (Agronomy), resigned to accept posts elsewhere.

On the retirement of Dr. Van Slyke, dairy chemist, it was considered wise to replace him with an investigator with special training in plant biochemistry, in line with the general policy to strengthen the station as a center for horticultural research. Dr. J. J. Willaman, who has gained distinction for his researches in the chemistry of plants, was called from the Department of Biochemistry of the University of Minnesota to become Chief in Research (Chemistry).

Dr. J. G. Horsfall, who received his doctor's degree for work in plant pathology at Cornell University, was appointed Associate in Research (Botany) on February 1, 1929, to undertake studies on the pathology of the several canning crops grown in the State. Dr. Bernhard R. Nebel, a graduate of the University of Halle, Germany, was appointed Associate in Research (Horticulture), the appointment to be effective on September 1, 1929. Dr. G. E. R. Hervey, a graduate of the Ontario Agricultural College, with advanced work at Cornell University, was appointed to the position of Associate in Research (Entomology), the appointment to be effective on July 1, 1929.

In an effort to bring about clearer differentiation between the activities of the New York State station at Geneva and the Cornell station at Ithaca, the Divisions of Agronomy and Poultry Husbandry were discontinued as fields of research at the state station at the close of the year. Two of the workers in the Division of Agronomy, Dr. R. C. Collison, the Chief, and J. D. Harlan, his assistant, were transferred to the Division of Horticulture, for work on orchard-soil problems. During the year there took place also a thoroughgoing comparison of all research projects under way at the Geneva and Ithaca stations, in order to accomplish fuller differentiation of work, where this was desirable, and closer cooperation and integration of research where the latter was deemed desirable. As a result, the research programs of the two stations are excellently coördinated.

APPROPRIATIONS

The total state appropriations available to the station for the year covered by this report amounted to $298,305. The Legislature of 1929 granted appropriations in the amount of $318,910, or a net increase of $20,605. Of this increase, $13,000 was appropriated on special recommendation of the Governor and the Agricultural Advisory Commission appointed by him, "for the investigation of certain moths and insects." While work has been undertaken under this grant on a number of insect pests on which further investigation is needed, the grant has especially made possible the inauguration of studies of the oriental peach moth, looking toward means of control. This moth made its appearance in New York in 1927 and 1928. It is a very destructive pest of nearly all hardy fruits.

In the increased appropriation there was included also an item of $7250 for investigations of the corn borer. This work had been started in the preceding year, on an allocation of funds from the State Department of Agriculture and Markets. The corn borer is already well established in New York and other States, and it is giving much concern to farmers in all corn-producing States.

It is gratifying to report also that the Legislature of 1929 made available an authorization and appropriation to prepare plans for the needed horticultural research laboratory, to which reference has been made in past years. The erection of this building is the outstanding need of the station. A further pressing need, for which no relief is yet in sight, is for a range of greenhouses to accommodate work of several divisions of the station, for which such houses are an imperative requirement.

A. R. MANN,
Dean, and Director of the Experiment Station.

APPENDIX X

REPORT OF THE DEAN OF THE NEW YORK STATE COLLEGE OF HOME ECONOMICS

To the President of the University:

SIR: I have the honor to submit herewith a report of the New York State College of Home Economics for the year 1928–29.

In this College, primary interest still centers on the education of the undergraduate. While the number of postgraduate students is slowly increasing, and has already reached a significant figure, this has so far come about largely without active encouragement, although the time has arrived when this phase can and should be encouraged. Very excellent beginnings have also been made in the way of specific provision for research, but here also the development has been narrowly restricted because of lack of funds and staff for the work. The sound development of graduate work and research must go forward together in a technical and professional institution, and this process is now effectively launched even though limited in scope. But wholly aside from any limitations imposed by resources, from the outset there has been complete agreement that in this somewhat newer field of collegiate education the first responsibility should be to develop a sound educational program and efficient methods of instruction for the undergraduate. To an appreciable extent these purposes have been realized.

During the past year the processes of education in the College have come under critical review. The fulcrum on which these processes rest is the curriculum. While this has undergone frequent reexamination, it has been subjected to particularly thorough restudy during the year. The entire staff was brought into an active plan to reevaluate the effectiveness of the individual courses, how they can be more effectively coordinated with one another and with the sciences on which they rest, and how they can be better related to the needs of students planning for a varied assortment of careers in the broad fields of home economics and to the educational objectives of the College. With this curricular study there has been associated naturally the question of methods of instruction suited to the several types of courses. Very great assistance on the professional aspects of education and curriculum building was rendered by the Department of Rural Education in the College of Agriculture, one member of whose staff, especially qualified in the methods of higher education, met in conference weekly throughout the year a group representative of all of the departments in the College of Home Economics. Steps were taken also to bring into active participation in the critical analysis of the structures and processes of the teaching program committees representative of the undergraduates and the alumnae, working independently in the initial stages. The association of the viewpoints of the teacher and the taught is expected to prove fruitful. The results of the several approaches will be analyzed and correlated during the coming year.

In many of the colleges and universities there is currently much interest in a group of questions having to do with student counseling and guidance and the orientation of freshmen in the fields of higher learning and in the methods and opportunities of collegiate instruction. Such questions have received appropriate consideration here. Institutions are still largely in the area of experimentation and discovery as to how the recognized needs of students in these matters can be served. The problems involved are complex, as they must reach downward to articulate with the pre-college preparation of students, on the one hand, and upward through the four years or more of study at the university, and outward toward the homes and the technical and professional fields in which the students will become engaged upon graduation. The magnitude of the problem and the uncertainty and perhaps vagueness which surrounds many of the efforts being tried at institutions in no wise lessens the need that it shall be dealt with. Out of the variety of methods employed may be expected to issue dependable procedures. The College of Home Economics is painstakingly facing the problems presented.

ENROLLMENT OF STUDENTS

In the College of Home Economics, in which limitation in enrollment in practiced, the methods of selective entrance applied, even though not wholly satisfactory, have yielded an academically better qualified body of students. Experience with the selective admission of students, however, points clearly to the need for continued study of methods employed, because of the extreme difficulty in evaluating individual ability and promise when dependence must be placed so largely on written records.

The enrollment in the College for the past two years is as follows:

	1927–28	1928–29
Freshmen	144	151
Sophomores	125	126
Juniors	93	137
Seniors	99	87
	461	501
Special students	9	6
	470	507
Graduate students	15	17
Summer-school students	7	73
	492	597
Less number counted twice	8	5
	484	592

The students in the special curriculum in hotel administration, included in the above, are classified as follows:

	1927–28	1928–29
Freshmen	39	45
Sophomores	33	38
Juniors	22	36
Seniors	32	21
	126	140
Special students	2	—
Summer-school students	—	27
	128	167

CHANGES IN THE STAFF

During the year under review, Miss Adelaide A. Barts, Assistant State Leader of Home Demonstration Agents, Miss Helen B. Kay, Extension Assistant Professor, and Miss Elizabeth Lacey, Assistant Professor, resigned from the staff.

At the close of the academic year, Miss Annette J. Warner, Professor of Home Economics and for many years head of the Department of Household Art, retired from her active duties and was appointed by the Trustees as Professor of Home Economics, emeritus. Professor Warner came to the University in 1913 to organize the work in design in the then recently created Department of Household Art. Later, on the resignation of Professor Helen B. Young from the headship of this department, Miss Warner succeeded to this administrative post, which she filled with ability until the time of her retirement. While her immediate field was concerned with color and design in relation to clothing and to housing, her influence went far beyond the classroom and vitally affected many other aspects of the physical environment of students in the College and in the university community. She responded generously to calls upon her for assistance in the artistic expression of other fields of activity. Her publications carried her ripened and tested ideals throughout the State. Her years of service at this institution, in one of its newer fields, constitute an important chapter in its history.

LEGISLATIVE APPROPRIATIONS

The Legislature of 1929 increased the appropriations available to the College in the amount of $12,590. Of this increase, $5000 was for the inauguration of investigations having to do with the costs of living in farm families. This is the first specifically designated appropriation made by the State for research on the economics of the household, and while it is modest it is most welcome, as the need has long been upon us to organize systematic studies in this field. The remainder of the increased appropriation was applicable to the current work, both personal service and general operating costs.

The item of outstanding interest is an appropriation made by the Legislature, on the recommendation of the Governor and of the University, of $475,000 to erect the first, or central, section of a new building for home economics. The present building has been outgrown for many years, and all of the activities have been conducted under severe handicaps resulting from both acute lack of space and lack of the possibility of expansion to incorporate new branches which have become highly essential since the present building was erected. The cost of the entire new building desired will approximate $1,000,000, so that the present appropriation will provide for nearly half of the additional area needed. The erection of the unit covered by the new appropriation will substantially improve the physical facilities. The action of Governor Roosevelt and of the Legislature in this matter is a source of great gratification to this institution.

THE RESEARCH PROGRAM

As the interest in home economics widens, increased pressure develops for experimentation and research in order that the bases for resident and extension instruction may be more securely laid. The relative recency of the formalization of this field of education creates a particularly urgent need for research. While contributions constantly come in from the sciences which underlie home economics and from closely related fields, the specific aspects of home and family life as they are contemplated in the peculiar focus of home economics necessitate studies largely distinctive in character and method, and the employment of the technics of the supporting physical and social sciences for the solution of many problems which have not yet found large place in the laboratories of these sciences. If the resident and extension teaching of the New York State College of Home Economics is to approximate its possibilities, greater provision must be made for the maintenance of a research program in each of the major fields of the College. It is here that the need is now perhaps greatest and that funds should be especially sought. The immediate connection between the laboratories of the College and the homes of the State through the highly developed extension service affords the opportunity to the State to rapidly transmute into application in the homes of the State, and particularly in rural homes, the scientific and technical advances which research laboratories and field studies may yield.

The fields in which research is formally organized and in progress include: (1) foods and nutrition, with a group of projects relating to vitamin A and vitamin D studies, and the rate of fat digestion; (2) the economics of the household, to determine important factors in home management, to develop a reliable cost-of-living index for farm families, to discover the sizes of purchasing centers of New York farm families, the economic management of the food supplies for families, and practices in household buying and in the management of family finances; (3) child guidance, with a series of specific undertakings designed to determine the factors which influence the growth of desirable traits and tendencies in children, how the learning situations of children can be organized to include these factors, and how the resulting growth can be recognized, recorded, and measured.

THE EXTENSION SERVICE

The range of problems encountered in the extension service, on which homemakers are seeking guidance, reveal many aspects of the subjects properly conceived as belonging to home economics on which there is yet a dearth of systematized and tested knowledge. As the College of Home Economics is the institution

to which the State has assigned the responsibility for attempting, by means of extension education, to foster progress throughout the commonwealth in the more essential of these problems, it urges that no steps should be omitted which will enable it more constructively and soundly to meet its opportunities. Closely associated with the desirability of an augmented personnel of properly qualified persons who may devote most of their energies to investigation and experimentation, is the need for a strengthened staff of extension workers. Under present conditions the growing eagerness of farm women for an educational service directed toward their particular needs can be capitalized for progress only in limited degree. Yet it is possible to measure the effectiveness of the work which is undertaken, and to ascertain that new standards and improved methods are being widely adopted.

The types of extension service offered during the past year may be briefly indicated for certain fields: (1) With respect to foods and nutrition, a series of projects directed toward the education of women in the fundamentals of nutrition and of food selection and preparation, and their importance for health and for better living. (2) With textiles and clothing, instruction in the principles of clothing selection and design, the bases for the choice of fabrics, the economics of clothing, and clothing in relation to health. In order to deal more effectively with expanding interests and abilities among farm women, a four-years consecutive project plan, with pre-determined but flexible sequence, has been instituted. (3) In other home crafts, a beginning has been made on the development of promising home industries, both for the interest they create, for the profitable use of whatever leisure time there may be, and to supplement the generally inadequate farm income. Among the industries in which work is now under way are the standardization and marketing of home-canned products, cooperative wayside marketing, the making of hooked rugs and woven articles, basketry, and the like. There is a strongly developed movement among farm women for the expansion of home crafts on a commercial scale. (4) In housing, to foster a more intelligent appreciation of the part the house plays in family life and to provide guidance in house improvements directed toward economic, social, and æsthetic ends. House planning, house furnishing, interior decoration, and kindred considerations enter. (5) In the field of family life, to develop in homemakers an understanding of how to teach the members of the family to share in the work and interests of the home, to insure each member a balanced program, and to adjust individual behavior and participation to a changing life outside the home. (6) In child guidance, the instruction of parents by means of lectures, demonstrations, exhibits, and formally organized study clubs, in the principles and practices underlying child behavior and guidance. The most vital part of this field program is found in the study clubs, which meet regularly for textbook study, the holding of round-table discussions, the preparation and presentation of assigned papers, consideration of directed home observations, and the like.

In all of these fields of work, the programs are diversified so as to deal with the needs of the various age groups from pre-school children to adults. In many of them, much time is devoted to the intensive training of local leaders because of the inability of the very limited college extension staff to reach most of the communities directly.

COURSES IN HOTEL ADMINISTRATION

The past year witnessed a continuation of progress in the development of the program of instruction, in the selection and development of the student body, and in a number of important technical relations with the hotel industry. As experience grows in this new field of education, there is need for continual revision of the offerings. The policy of annual reexamination has resulted in bringing the courses to an increasingly strong basis, as judged by the educational and technical objectives. As a supplement to the regular instruction during the year, a series of lectures by some of the leading figures in the hotel industry was offered.

The placement of students for experience, and, later, in permanent positions, grows less difficult as confidence in the value of the instruction spreads throughout

the country. There has been marked increase in the number of calls for men and in the number of satisfactory placements. This aspect is also affected by the care used in the selection of applicants for admission to the course and personnel studies conducted with those who are accepted.

In the summer of 1928 there was offered experimentally summer instruction for certain categories of hotel employees. The attendance in these courses was twenty-nine. A year later a somewhat enlarged summer program was offered with an enrollment of one hundred. Some of the larger hotel organizations sent selected employees to these courses, paying all of their expenses. The indications are that this enterprise is meeting a need and that it should be continued.

A modest beginning has been made in research, with a statistical study of the operating records of fifty cooperating hotels. The preliminary results have been gratifying. There is strong need and desire to develop a fairly broad basis in research for the instruction.

Mention may appropriately be made of the fact that during the past year these courses at Cornell have received commendation of a most gratifying character in the hotel press throughout the country.

A. R. MANN,
Dean of the New York State College of Home Economics.

APPENDIX XI

REPORT OF THE DEAN OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR: I have the honor to submit the following report of the College of Architecture for the academic year 1928–29.

Registration in the College at the beginning of the year was the largest in the history of the College, the total being 196. This number has been found somewhat too large for our facilities. It seems clear that until larger quarters are provided our registration must be kept between 180 and 190. The total number of applicants for admission in September 1929 is somewhat less than for the previous year though it is still largely in excess of the number that can be admitted.

Seven years ago the Faculty decided to discontinue the four-year course and to offer only a five-year course. This decision was reached not without some hesitation as to its possible effect on our enrollment, especially since, at that time, no other school had tried this experiment. It is still too early to draw definite conclusions as to the wisdom of this step but it is interesting to note that thus far our applications for admission have been increasing in number and that during this seven-year period six other schools have adopted the five-year course to the exclusion of the four-year course.

Of the twenty-five leading schools of Architecture in the country four are on a graduate basis, seven are on a five-year basis and the other fourteen still offer a four-year course. Whether Cornell should join the group requiring a baccalaureate degree for entrance is a debatable question. So far as this Faculty is concerned there seems to be no desire to change from our present practice at least until the results of the going experiments can be assessed.

For a number of years past we have been looking forward to the time when we could increase the registration in the College to about 300. In last year's report the considerations calling for an increase in registration were discussed. It was then pointed out that such an increase is impossible until a new physical equipment is provided but that in the meantime our problem lies in perfecting our present organization so that we may have a proper basis for expansion when the opportunity is presented. During the past year a group of interested alumni has been working under the leadership of R. H. Shreve, '02, to provide a fund that will make it possible for us to begin this preparatory work. The fund is not

yet completed but, with its assistance, we have already been able to make a start along some promising lines.

Our program for the use of this fund is:

1. To relieve overcrowded classes.
2. To strengthen the work of the Fine Arts department and to meet the steady and increasing call throughout the University for instruction in the general field of the Fine Arts.
3. To build up our Library.
4. To make possible the usual and proper sabbatic leaves for the staff.

Two new appointments to the staff have already been made with these objectives in mind. Donald Lord Finlayson, Assistant Professor of Fine Arts, is completing his first year of work. He has offered courses in the History of Art which have been well received and which we hope will form the nucleus of an important development of general University interest. Harry P. Camden, Assistant Professor of Sculpture and Drawing, will begin his work here next Fall. His appointment will tend to strengthen the Fine Arts Department where it has been weakest, namely in Sculpture. This appointment will make possible the reduction of over-crowded sections and the opening of courses in Drawing, Painting, and Modeling to general election. There is also being planned, for the coming year, a course of twelve lectures on the History of Art, given by various members of the University Faculty, under the direction of Professor Finlayson. These lectures are intended to appeal to the University community in general and will not be given for credit. These offerings constitute our first real contribution to the broad field of Fine Arts Education, mentioned in previous reports.

It is gratifying to be able to report definite progress in the development of our Library. Five thousand dollars was appropriated from the gift of the Carnegie Corporation. This has been used to strengthen our collection at its weakest points, principally in the History of Art. Another substantial gift came from Professor William H. Schuchardt, who gave a large part of his collection of books on Architecture and Art. These gifts, together with several minor ones and the alterations to the building now in progress, have bettered our equipment materially. At the same time the Alumni Fund has made possible the employment of an Assistant Librarian for next year. We will now be able to give the books better care and to make progress with our arrears of cataloguing and indexing.

Seven years ago instruction in Landscape Architecture was transferred from the College of Agriculture to the College of Architecture. At that time the course in Landscape Architecture was changed from a four-year course to a five-year course and tuition charges became the same as for Architecture. These changes have undoubtedly hampered the growth of this work. There has been no increase in the number of students in this course. On the other hand it is felt that the work is on a better and sounder basis and that the growth that usually comes to a well considered program is bound to be realized eventually.

More important than growth is the question of results. We feel that in some respects progress has been made. The essential unity of the arts of Landscape Architecture and Architecture has been given the sort of emphasis in the minds of the students that naturally results when they work side by side, day after day. In the long run this is bound to result in a better understanding between the practitioners of the two professions. Our experiment is being watched by other schools and it is probable that one or more will soon reorganize on a similar basis.

For a number of years we have been hoping to start courses in Design, which will be open to general election and intended to appeal primarily to students of Engineering. Here again our aim would be to better the understanding between two allied professions. This work should be started at the earliest opportunity.

With the cooperation of the Comptroller of the University, a promising educational experiment has been started at the old Cornell residence, 601 Stewart Avenue. This house which has recently become the property of the University was assigned to the fifth-year students in this College as a residential hall. Under the direct supervision of Professors Dunbar and Lawson the experiment has proved highly successful. The students resident in the house have developed an

esprit de corps that is noteworthy and most helpful in the work of the College. They have been hosts at several very happy social functions and have entertained a number of distinguished guests. For the coming year the intention is to entertain in this manner all the outside lecturers who come to the College.

Toward the end of the year, Professor William H. Schuchardt tendered his resignation to the Board of Trustees. He was reluctant to leave his work here but his decision was dictated by the state of his health. During his connection with the University he contributed largely of his time and otherwise to the work of the College. His influence has contributed more than any other toward making it possible for us to start the program of general education in the field of the Fine Arts. His departure is a serious loss not to the College alone but to the entire University community. The work of the Morse Hall Galleries which has been Professor Schuchardt's especial care is thus left on an insecure basis. It has so obviously proven its worth that means must be found to continue and to develop it.

GEORGE YOUNG, JR.,
Dean of the College of Architecture.

APPENDIX XII

REPORT OF THE DEAN OF THE COLLEGE OF ENGINEERING

To the President of the University:

SIR: I have the honor to present the following report upon the work of the College of Engineering for the year 1928–29.

It is with the greatest sorrow that I record the death of Professor John Pertsch who lost his life by drowning while saving the life of another. Professor Pertsch was a graduate of the college and had taught here constantly since graduation. A man of the finest personal character and a brilliant teacher, greatly interested in all the problems of the School of Engineering, his loss is irreparable. His scholarly instruction and companionable personality will long be missed by his colleagues and friends.

The year just closed has been an uneventful one so far as the curriculum of the college is concerned. Many small changes and adjustments have been made, but nothing of a revolutionary character. One event, however, deserves special mention, namely, the retirement of Professor McDermott, who for thirty-seven years has been in charge of the course in Naval Architecture. A scholarly and gifted teacher he will be greatly missed by all of his coworkers, many of whom have long enjoyed his friendship. He carries the good wishes of all with him.

The retirement of Professor McDermott presents afresh a problem that has troubled and is still perplexing all faculties of engineering in this country. The last quarter of the last century witnessed a great expansion of engineering and manufacturing causing a great demand for engineers of higher technical ability than hitherto required. In answer to this demand there was established at Cornell beginning with 1885, approximately, "graduate" courses in marine engineering and naval architecture, railway mechanical engineering, steam engineering, bridge engineering, sanitary engineering, hydraulic engineering, and geodetic engineering. The obvious purpose of these courses was to prepare men a little more specifically for these several fields. The rapid growth of the undergraduate curriculum, however, has gradually absorbed the content of these graduate schools and today such specialized instruction appears in the form of "senior options." Thus in mechanical engineering all students must complete a four-year course the senior year of which consists of twenty-four hours of instruction in common for all seniors and fourteen hours of instruction in some senior option such as heat power engineering, industrial engineering, etc. No graduate "courses" of instruction are offered but the student who desires may take

his graduate work in any of these fields under our general method of graduate work, a plan which appears to work very well, as viewed by the faculty. There appears to be a growing feeling among educators that so long as the college course is limited to four years the amount of specialized instruction must be small.

This is not shared, however, by some educators and the pressure from industry for specialized instruction never relaxes. Many alumni, also, are insistent that the field in which they may happen to have been successful deserves special attention. The aeronautical field furnishes a good example. There is much clamor for special instruction in this field and several special schools have been organized. The writer does not suggest that such instruction is not needed, but would point out that exactly the same clamor was made twenty years ago for special instruction in automotive engineering. As a matter of fact, and record, industries such as the automotive and aeronautical fields can absorb only a small number of highly trained specialists, but can absorb a large number of men with sound basic training for production engineering. This is true of all industries where mass production methods are used and if aeronautical production should grow to a large volume (which it probably will) it must assume the same general characteristics as automobile production so far as the educational problem is concerned. And as a corollary only a few colleges should train specialists in these fields. Research and advanced work in these fields can be done only at a considerable cost for equipment. It would seem that the time is ripe for a new survey of this problem as the industrial field is broadening and changing rapidly. The relations of chemistry and physics to the instruction in engineering also needs study and such a joint study is now under way between the faculty of engineering and those of chemistry and physics.

The most important addition to the working equipment during the past year was a gift of a complete broadcasting station, the donors of which wish to remain anonymous. This gift includes the machinery for broadcasting, a good building for housing it, towers, antennae, etc. The station is a gift to the University and will be used, of course, to broadcast University news, but it will also afford first class laboratory facilities for the School of Electrical Engineering which offers a senior option in communication engineering. The capacity of the station is 1000 watts, but our present license limits the station to 500 watts and to daylight service only. It is hoped that modifications of these restrictions can be obtained in the future.

The past year has been a fruitful one in the field of research and some of the most important projects are here noted. Professor Scofield has continued his work on concrete mixtures for road work and has also undertaken a special research problem in cement mixtures for which Colonel Hugh Cooper, a noted engineer and builder, has donated $1000. Professor Karapetoff has continued the research on high voltage cables for which the Detroit Edison Company made financial provision for another year. Professor Ballard is studying some phenomena in radio communication with the aid of a McMullen Research Scholarship. Professor Diederichs completed an important study in hydraulics which will be published as a report of the engineering experiment station. He has also undertaken an important study of heat transfer under the auspices of the National Research Council. Prof. Ernsberger is conducting the study of flow of gases in the chimney of the heating plant for which special provision was made in its construction. Other research projects in mechanical engineering are an investigation of metal-cutting tools and a study of crucibles for high temperatures. The cutting tools necessary for the first will be furnished through the kindness of Goddard and Goddard of Detroit while the second project will be made possible through funds furnished by the American Crucible Association. A number of minor studies are also under way. The scientific quality of these research problems it will be noted is excellent.

The Faculty of the College has always been productive in the matter of textbooks and in the past year it has maintained its reputation, no less than six new books having been produced. A considerable number of articles have also been contributed to the technical press.

The McMullen Research Scholarships have become an important factor in the work of research and hold out hope for greater productive effort in the future.

Without these scholarships it would be difficult to keep such research work as that now being conducted by Professor Scofield in constant operation, a necessity in most research work. Not only do these scholarships aid the work of research, but they also free the Professor who may be supervising the project from much routine work, thus permitting him to give the attention that he should to his teaching. One of the difficulties of research is that it is apt to absorb the entire time of the professor concerned to the detriment of his teaching. This is a misfortune to the students for the teacher who is carrying on research and who can bring back to his classes the benefits thereof is a more valuable man to all concerned. The undergraduate McMullen Scholarships continue to grow in number and now number fifteen. They have been of great assistance to many worthy and needy students.

A touching gift is the scholarship recently founded by Mr. and Mrs. A. S. Gilbert in memory of their son Carl Richard Gilbert, who died suddenly last year while a student in the college. Mr. Gilbert in searching for a suitable memorial noted the scholarship founded under similar circumstances by Dr. and Mrs. Toms to assist worthy and needy students in Mechanical Engineering. The scholarship founded by Mr. and Mrs. Gilbert will be available in a similar manner to students in Electrical Engineering. The capital value of the scholarship is $5000.

The personnel work under Professor Bangs has been extended and improved. Last year an effort was made to get into more intimate contact with the students during their earlier college years. If corrective methods are to be effective they should be applied as early as possible and a large part of this work should aim to correct and aid students both personally and academically. A careful study has been made of other systems and some visits have also been made to other institutions where such methods are in use. The placement work this spring was very successful. Seventy-two organizations sent representatives to interview our seniors, and in mechanical and electrical engineering in particular there were opportunities for all graduates. In all fairness, however, it should be said that this was not due altogether to our efforts, as engineering graduates were in great demand this year all over the country. This demand comes not only from engineering and manufacturing organizations, but from other enterprises of a more commercial character that wish to employ young engineers in somewhat broader fields. However, there can be no doubt of the usefulness and efficiency of well directed placement methods and we expect to develop this work even more fully than it is at present.

The spirit of both faculty and student body during the past year has been excellent and the session has been free as usual from those misunderstandings or disagreements among or between either body that sometimes affect the work of educational institutions. The cheerful attitude of the faculty in the face of some discouraging conditions is greatly to be commended. I sincerely hope that the present limitations, both as to salaries and equipment may be relieved in the near future.

DEXTER S. KIMBALL,
Dean of the College of Engineering.

APPENDIX XIII

REPORT OF THE ADMINISTRATIVE BOARD OF THE SUMMER SESSION

To the President of the University:

SIR: On behalf of the Administrative Board of the Summer Session I have the honor to report as follows for the session of 1928:

ATTENDANCE

	Men	*Women*	*Total*
In Summer Session	840	704	1544
In Summer School of Agriculture	264	377	641
	1104	1081	2185
Less double registrants	52	101	153
	1052	980	2032
Summer Session of Law	112	6	118
	1164	986	2150

GRADUATE STUDENTS

Graduate students in Summer Session	111	117	228
Graduate students in Agriculture	60	26	86
Graduate students in both	26	13	39
	197	156	353

ANALYSIS OF SUMMER SESSION REGISTRANTS

Undergraduates of Cornell	258	60	318
Undergraduates of other institutions	169	154	323
Students holding Cornell degrees	44	41	85
Students holding degrees from other institutions	154	224	378
Students holding Normal School diplomas	8	165	173
	633	644	1277

TEACHERS

	1926	*1927*			*1928*		
	Total	*Men*	*Women*	*Total*	*Men*	*Women*	*Total*
High School	235	61	191	252	56	164	220
Grades	208	11	190	201	10	152	162
Colleges	46	37	27	64	45	31	76
Normal Schools	6	–	2	2	1	1	2
Superintendents	5	1	–	1	4	–	4
Principals	12	9	4	13	12	6	18
Supervisors	7	2	5	7	2	4	6
Kindergarten	5	–	9	9	–	5	5
Others	16	2	9	11	4	20	24
Junior High Schools					7	24	31
Junior Colleges					1	–	1

GEOGRAPHICAL DISTRIBUTION

		1927		*1928*
New York		1122		1178
Pennsylvania		217		218
New Jersey		126		139
Other Middle States (including Md., D. C., Del.)		90		64
New England		113		118
Southern States		101		101
West Virginia	5		9	
Virginia	13		14	
North Carolina	15		16	
South Carolina	8		4	
Georgia	7		6	
Florida	13		15	
Alabama	3		5	
Mississippi	11		7	
Kentucky	9		7	
Tennessee	4		3	
Louisiana	2		3	
Arkansas	4		5	
Texas	7		7	
Central States		86		101
Ohio	47		46	
Indiana	9		10	
Michigan	11		21	
Illinois	19		24	
Middle Western States		28		30
Missouri	5		6	
Kansas	2		2	
Wisconsin	5		5	
Minnesota	2		1	
Iowa	8		8	
Nebraska	3		4	
Oklahoma	2		4	
Wyoming	1		—	
North Western and Pacific Coast		18		20
South Dakota	1		—	
North Dakota	—		1	
Montana	1		—	
Colorado	5		4	
Utah	—		3	
Arizona	1		1	
Washington	1		2	
Oregon	1		1	
California	7		6	
Idaho	1		2	
Foreign Countries		62		63
		1963		2032

SUMMER SESSION ATTENDANCE BY COURSES

Subject	*1923*	*1924*	*1925*	*1926*	*1927*	*1928*
Architecture	—	—	—	—	—	17
Astronomy	12	16	21	22	19	24
Chemistry	189	165	211	201	205	213
Drawing and Painting	38	60	67	54	59	107
Economics	331	277	288	243	252	210
Education	315	392	434	500	365	388
Engineering:						
Shop Work	18	13	—	—	—	—
Drawing	27	13	7	15	10	11

	1923	1924	1925	1926	1927	1928
Descriptive Geometry	28	27	35	35	38	29
Kinematics	42	54	34	25	20	20
Mechanics	87	116	92	83	92	88
Hydraulics	21	26	16	22	27	14
Structural Engineering	90	115	88	96	105	111
English	591	595	611	607	590	561
Geography and Geology	247	280	231	175	220	191
German	39	75	62	69	51	63
Government	60	57	46	58	40	64
Greek	—	—	—	10	5	16
Health Education	—	—	28	37	31	24
History	268	245	248	269	320	255
Hygiene	—	12	22	—	—	—
Latin	42	66	60	24	75	48
Mathematics	268	293	220	246	236	288
Music	115	114	104	122	162	106
Philosophy	124	115	120	125	115	102
Physical Education	116	153	50	113	188	107
Physics	155	132	100	129	110	114
Psychology	164	208	180	183	117	120
Public Speaking	145	146	147	183	168	163
Romance Languages:						
French	185	185	210	214	202	175
Spanish	80	75	63	59	62	54
SUMMER SCHOOL OF BIOLOGY						
Botany	57	47	49	61	46	67
Zoology	55	83	75	90	70	95
Botany and Zoology (courses dealing with both Plants and Animals)	13	20	13	32	27	19
	125	150	137	183	143	181
SUMMER SCHOOL OF LAW						
First Term	37	62	105	84	77	96
Second Term	32	63	100	79	60	84
	69	125	205	163	137	180

COST PER STUDENT HOUR (1928)

Subject	*Student Hours*	*Cost*	*Cost per Student Hour*
Architecture	76	$575	7.56
Astronomy	58	375	6.46
Chemistry	582	5400	9.28
Drawing and Painting	155	925	5.97
Economics	496	2875	5.79
Education	674	3475	5.15
Engineering	856	7550	8.81
Descriptive Geometry	46	575	12.50
Mechanical Drawing	33	750	22.72
Mechanics	237	2075	8.75
Hydraulics	56	750	13.39
Materials	87	750	8.62
Structural Engineering	343	1900	5.54
Kinematics	54	750	13.88
English	1085	5225	4.81
Geography and Geology	284	3350	11.79
German	184	1325	7.20

Government	92		750		8.15	
History	476		3775		7.93	
Latin	94		1500		15.95	
Greek	27		575		21.29	
Mathematics	937		6200		6.62	
Music	186		2325		12.50	
Philosophy	174		1325		7.61	
Physical Education	155		3575		23.77	
Hygiene	45		1150		25.55	
Physics	328		3975		12.12	
Psychology	220		2500		11.36	
Public Speaking	304		3287.50		10.81	
Romance Languages	518		4025		7.77	
French		374		2675		7.15
Spanish		144		1350		9.37
	8006		66037.50		8.24	

You will notice in studying the general table of Attendance that the total attendance upon all departments offering Summer Session work was 2150 as against a total for the Session of 1927 of 2053, and for the Session of 1926 of 2133. This registration is thus the largest for any Summer Session since the discontinuance of the Summer School of Music in 1921. The increase was distributed among all schools of instruction, the largest increases being in the Summer Session of Law. A significant item is the increase of graduate students, there being 353 in attendance in 1928 as against 297 in 1927. Undergraduates of Cornell numbered 318 as against 285 in 1927, and undergraduates of other institutions numbered 323 as against 298 in 1927. Students holding degrees from other institutions totaled 378 as against 328 in 1927. There was also an increase of 47 in the group holding Normal School diplomas. This year for the first time a regulation was enforced requiring all undergraduates, both of Cornell and of other institutions, to present a certificate of "good standing" in the institution from which they came. Notwithstanding this regulation you will note that our undergraduate enrollment increased in numbers. The number of Cornell graduates in attendance was exactly the same as for 1927. The total number of public school teachers in attendance was 11 less than in 1927, although greater than in 1926. There is every evidence to believe that the general increases noted represent a greater number of persons who are on the campus for serious work, and a discouragement of those who are here for incidental purposes only. There is also a decrease in the number of prospective freshmen making up entrance conditions. This is evidence of the more severe restrictions upon entrance enforced within the last few years whereby fewer students are taken with conditions and greater emphasis is placed upon complete preparation before acceptance of registrants. Taken all together the figures give reason for a feeling of encouragement in continuing the work of the Session.

The table showing attendance by courses shows the usual fluctuations, gratifying increases being noted in the Departments of Mathematics and of Painting and Drawing, with other Departments holding their own, except for a continued decrease in the registration in Spanish, and a lighter enrollment than last year in Physical Education. It should be noted that one new Department is represented. Courses were offered for the first time in Architecture, an assistant professor from the College of Architecture being assigned to this work. The registration and results of the courses amply justified their introduction.

The table showing cost per student hour for each Department shows a general increase in cost due in large part to a somewhat different method of figuring these costs in order to place them on a comparative basis with other institutions as requested by the Association of Summer Session Directors. In the past all registrants have been counted in computing costs whether completing the course or not. This year for the first time those dropping out of courses have not been counted in the totals. The increased cost, therefore, is largely a matter of bookkeeping,

rather than of actual increase. In general none of the Departments show an excessive per capita cost save those of Physical Education and Hygiene and of Greek. The cost in Greek is less than for 1927 and there is reason to believe that it will be still less during the coming summer. The Department of Physical Education and Hygiene still presents a problem. After three years trial it has not shown the growth that was expected. It would seem, however, it should be given a trial for one more year. With somewhat more extensive advertising, it is hoped that it will justify itself.

The plan of 1927 whereby the offerings in the Departments of Education of the University were announced under the auspices of the Division of Education was discontinued and as in the past were given under the respective heads of the Summer Session proper and of the Summer School of Agriculture. This would not indicate any lack of cooperation between the two departments, but was rather for the purpose of facilitating registration and of clarifying study of the announcement by prospective students. The increase in registration for the Department in the Summer Session may be in part attributed to this method of announcement. The demand for more graduate work in Education was felt to a greater extent than ever before, and plans for 1929 contemplate an addition of certain courses to meet this demand.

The notable increase in graduate students is to be attributed partly to the operation of the new regulation approved by the Trustees, by which graduate fees for Summer Session registration have been reduced for those students who have already paid an equivalent of the fees required during the regular academic year. The operation of this plan has had one immediate effect of value; it brought into the Session a number of students enrolled for graduate work under personal direction who in the past had not contributed to the support of the Session, and reduced considerably the number of students working under personal direction outside of the Session. Most of these students wish to avail themselves of one course only, and it is probable that the incidental fee which they were required to pay very nearly met the cost of the instruction which they received. The reaction of students who would have continued in any case to register in the Session has naturally been very appreciative, and there is every reason to believe that this action will attract to us a sufficiently larger number of graduate students to offset with a credit balance the expense to the University. The increased number of graduate students has, however, brought with it certain very serious problems. It has entailed a very considerable burden upon instructors for oversight of large numbers of graduate students and thus has encroached upon the time and energy of these instructors to a very marked degree. This pressure is felt especially in the Departments of Education, Mathematics, English, History, Latin, and Modern Languages. The problem is one of moment both to the Summer Session and to the Graduate School, for in order to provide a sufficient number of instructors to carry this work without undue burden it involves a considerable increase in the cost of instruction for the Summer Session; and the question of the requirement of a thesis for the Master's degree is raised for consideration by the Graduate School.

A question is also raised for consideration regarding the present tuition fees for the Session. These have not been increased commensurately with the recent increases in tuition for the undergraduate colleges of the University, and in light of the relief given to serious graduate students, it may be that other students of the Summer Session should be expected to pay a somewhat larger fee than in the past. The equity of such an increase should be considered very carefully in making plans for the Session of 1929.

The problem of the Library facilities of the University is as critical as in the past. It is only necessary to note here that this problem is as serious for the Summer Session as for the academic year.

Attention should be called to the increasing number of groups of students who are served by the University during the Summer months under auspices other than those of the regular session. Special short courses offered this summer under the auspices of the Department of Rural Education for District Superintendents of New York State, by the Department of Hotel Management, courses

for religious workers by the cooperation of the School of Agriculture and the Cornell University Christian Association, brought considerable groups of earnest students to the campus for varying periods of time and added notably to the personnel of the summer group.

It should also be reported that the Annual Meeting of the Association of Summer Session Directors, of which the late Professor Bristol was one of the founders, was held on the Cornell campus on November 4 and 5, 1927. This was the first time that this Association had met in Ithaca, and the members were most appreciative of the hospitality of the University. It is believed that the presence of this group of men was of real advantage to our own staff.

The morale of the student body during the Session was at least as good as during the Session of 1927. In the opinion of the majority of instructors there was better class spirit shown and greater evidence of maturity and serious purpose than has yet been evidenced. There is reason to believe that the various measures which have been taken in the past few years to bring about a satisfactory condition in this regard have borne fruit so that we may feel that our most serious problems in this regard have been solved.

Your Administrative Board will doubtless have some specific recommendations to place before you in making final plans for the Session of 1929. It will, as in the past, be very grateful for suggestions on your part for the improvement of its work.

R. H. JORDAN,
Chairman of Summer Session.

APPENDIX XIV

REPORT OF THE DEAN OF WOMEN

To the President of the University:

SIR: I have the honor to submit to you the following report of the Dean of Women, for the year 1928–29.

The residential situation for undergraduate women for the year 1928–29 has been the same as that of the previous year, the women being housed in Risley, Sage, the Cascadilla group of houses, the seven University cottages, and the fourteen sorority houses. The situation for graduate women was changed slightly by the fact that Sigma Delta Epsilon (Scientific Honorary Sorority) gave up its house. The distribution of undergraduate and graduate women students by residence and by classes was as follows:

DISTRIBUTION BY CLASSES

	First term	*Second term*
Freshmen	298	307
Sophomores	261	243
Juniors	276	276
Seniors	268	227
Total	1103	1053
Graduates	120	142
Specials	29	27
Grand Total	1252	1222
Increase over year 1927–28	21	52

DISTRIBUTION BY RESIDENCE

	First term	*Second term*
Risley	192	185
Sage	180	176
Approved houses	138	129
University Cottages	136	132
Sorority Houses	230	215
Special Permission	39	36
Earning room and board	45	43
Home in Ithaca	143	137

During the first semester of the past year statistics were compiled and tables made showing the registration by colleges of the undergraduate women during the year 1927–28, the number of subject groups, the number of separate courses, and the number of enrollments for the same period. Also a table of preferences of Junior and Senior Women in the Arts and Sciences College, as indicated by elections of majors. This was done in response to a request from Radcliffe College for the sake of comparison with several other colleges and universities, the facts to be presented in connection with their semi-centennial anniversary this June. The tables follow:

CLASSIFICATION OF WOMEN STUDENTS FOR THE ACADEMIC YEAR 1926–27

Undergraduates	*1192
Graduates	155
Specials	50
Total	1397

*Exclusive of 29 attending Cornell University Medical School in New York City.

TABLE SHOWING NUMBER OF UNDERGRADUATE WOMEN, BY COLLEGES, REGISTERED FOR THE ACADEMIC YEAR 1926–27. ALSO NUMBER OF SUBJECT GROUPS, NUMBER OF SEPARATE COURSES, AND NUMBER OF ENROLLMENTS FOR THE SAME PERIOD

	Arts	*Law*	*Medicine*	*Agriculture*	*Home Economics*	*Veterinary*	*Architecture*	*Engineering*	*Totals*
Number of different girls registered during year	672	5	11	116	380	2	19	5	*1192
Number of subject groups	20	None	2	19	8	7	7	8	71
Number of separate courses	425	21	9	137	66	36	48	19	761
Number of semester enrollments	7753	41	43	1086	1749	48	118	41	10,879

*18 duplicate registrations.

TABLE OF THE PREFERENCES OF JUNIOR AND SENIOR WOMEN IN THE COLLEGE OF ARTS AND SCIENCES DURING THE ACADEMIC YEAR 1926–27, AS INDICATED BY ELECTIONS OF MAJORS

Subject	*Number of Women Electing Each*
Animal Biology	7
Botany	1
Chemistry	7
Classics	22 (10, Latin only)
Economics	8
Education	4
English	89
English and History	8
English and Public Speaking	11
English and Philosophy	3
French	33
French and Spanish	2
Geology and Physical Geography	4 (2, Geology only)
German	3
Greek and Animal Biology	1
History and Government	34 (17, History only)
History and Physical Education	1
Mathematics	7
Mathematics and French	1
Mathematics and Physics	1
Philosophy and Education	2
Philosophy and Psychology	7
Physical Education	2
Physics	3
Psychology and Education	4
Spanish	6
Total	275

EMPLOYMENT

Miss Howe has ably carried on the constantly growing department of employment. During the past year she has made, through this office, four hundred and forty-eight placements. This means that three hundred and sixty-two different girls have found employment, either regularly or part time, and two hundred and forty-five people have found employees. In addition to this, and not included in the totals, are all the women earning their board by waiting table at the dormitories and at Willard Straight. It is interesting to note that, of those who earned their room and board in private families the first semester, twenty-one were in the Arts College, four in the College of Agriculture and twenty-four in the College of Home Economics. During the second semester, nineteen were in the Arts College, two in the College of Agriculture, and twenty-two in the College of Home Economics.

LOANS

While student self-help has increased in the past year the number and amount of loans granted has decreased. Only $9,207 was given out in loans this year as compared to $14,884.08 last year. The distribution of loans as to classes and funds is as follows:

	1929		*1930*		*1931*		*1932*		*Spec.*		*Grad.*		*Total*	
	Am't	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*	*Am't*	*No.*
W. S. L. F.	5058.25	25	1869.75	13	1022.75	6			160.00	1	200.00	1	8310.75	46
Alumnae	100.00	3	145.00	6	5.00	1	99.25	3			45.00	2	394.25	15
W. G. S. F.	70.00	2	232.00	3									302.00	5
Dearstyne	100.00	2											100.00	2
A. A. U. W.					100.00	1							100.00	1
Grand Totals	5328.25	32	2246.75	22	1127.75	8	99.25	3	160.00	1	245.00	3	9207.00	69

SOCIAL LIFE

The chaperons for three hundred and eighty-nine social functions were approved during the past year, an increase of forty-four over last year. Included in this number were seventy-one house parties which required the approval of their chaperons.

PERSONNEL AND VOCATIONAL WORK

This continues to be the most important phase of the Dean of Women's duties. The greater part of her time is devoted to personal interviews with the women students, giving them counsel, encouragement, and helping them make the necessary adjustments to college life. In order to become better acquainted with the members of the freshman class, the Dean of Women has entertained the entire class in a series of teas at her home, inviting them in small groups. This was done partly that she might become better acquainted with them and partly that they might become better acquainted with each other.

Vocational speakers on the lines of store personnel work and other phases of department store work, library work, book publishing, and book selling, have been brought to Cornell to address the girls and to advise with them.

SUMMER SESSION

The enrollment of women in the Summer Session of 1928 was about the same as that of the previous year. The women were housed in Risley, Sage, Cascadilla, the approved houses of the Cascadilla group, the University cottages, and seven of the sorority houses. The Dean of Women feels the need of an adequate fund for entertainment during the Summer Session so that something may be done in the way of entertainment for men and women together. The lack of such functions has been much commented upon and the advantages of such provision for entertainment seem obvious.

CHANGES IN RESIDENTIAL SITUATION FOR NEXT YEAR

With the opening of the four new dormitory units next fall the housing situation for both undergraduate and graduate women will be materially changed. At that time it is expected that all undergraduate women will be housed in the two dormitories, Sage and Risley, and the four new units. The houses in the Cascadilla group will no longer be used, except as the landladies may desire to house graduate women, and there will be no undergraduates in the University cottages. This not only provides admirably for the undergraduate women but also indirectly improves conditions for the graduates. Two of the University cottages, 308 Wait Avenue and 613 Thurston Avenue will be used next year to house graduate women.

The imminent opening of the new dormitory and the change which it brings about in the arrangements for undergraduates will necessitate a radical change in the organization of the Women's Self Government Association, which has so admirably handled the situation in the outside cottages. A committee was appointed this spring to consider this matter and present a plan of reorganization. This was done, and while the new plan seems in theory suitable for the new situation, it can only be tested and perfected by its use next year.

The four Heads of the new units have been chosen from many applicants and after a great deal of time and consideration. Approval has been given to the appointments of the following Heads: Mrs. Frederick Biggs, Trumansburg, N. Y.; Mrs. Mable Dow Conger, Boston, Mass.; Miss Mary Cornell, Harrisonburg, Va.; Mrs. Carolyn V. Powell, Cleveland, Ohio. Miss Nye continues as the Head of Risley and Miss Seely will be again at Sage.

R. LOUISE FITCH,
Dean of Women.

APPENDIX XV

REPORT OF THE REGISTRAR

To the President of the University:

SIR: I have the honor to submit herewith my thirty-third annual report as Registrar of the University. The report covers the academic year 1928–29 including the Summer Session of 1928.

THE YEAR

	Days in Session	Sundays	Holidays	Vacation	Total
Summer vacation, June 19—July 6	..	..	..	18	18
Summer Session, July 7—Aug. 16	36	5	..	..	41
Summer vacation, Aug. 17—Sept. 23	.	..		44	44
First term, Sept. 24—Feb. 6	101½	15	.	.	116½
Thanksgiving vacation	.	..	.	4	4
Christmas vacation, Dec. 22—Jan. 7	.		.	15½	15½
First term, vacation, Feb. 7		..	.	1	1
Spring vacation, Mar. 30—Apr. 8	.	..	.	8½	8½
Second term, Feb. 8—June 17	101½	17	1	..	119½

*ATTENDANCE AT SUMMER SESSIONS, ETC.

	Men	Women	Total
Graduate—Personal Direction, after June 1928	58	26	84
Graduate—Personal Direction, before July 1929	75	10	85
Graduates in 1928 Summer Session and State Summer School	186	159	345
Summer School of Law, 2nd term, 1928	81	3	84
Summer School of Law, 1st term, 1929	69	8	77
Short Winter Agriculture, 1928–29	150	7	157
Summer Session, 1928	812	716	1528
State Summer School, 1928	326	418	744
Totals	1757	1347	3104

*DUPLICATES

	Men	Women	Total
Graduate School—Arts	13	12	25
Graduate School—Agriculture	8	8	16
Graduate School—Home Economics	—	1	1
Graduate School—Medicine	1	0	1
Graduate School—Engineering	3	—	3
Arts—Law	2	1	3
Arts—Medicine	12	2	14
Arts—Agriculture	4	2	6
Arts—Home Economics	2	4	6
Arts—Architecture	2	—	2
Arts—Engineering	10	—	10
Agriculture—Veterinary	3	—	3
Agriculture—Engineering	4	—	4
Architecture—Engineering	1	—	1
Graduate (Personal Direction)—Graduate (Personal Direction)	1	1	2
Graduate (Personal Direction)—Graduate in S. S.	—	2	2
Graduate (Personal Direction)—Graduate	25	7	32

*To accompany the inserted table showing attendance for the year 1928–29.

	Men	Women	Total
Graduate (Personal Direction)—Graduate	56	7	63
Graduate—Graduate (S. S.)	35	17	52
Graduate—Summer Session	141	117	258
Graduate—State Summer Session	63	34	97
Summer Session—State Summer Session	99	134	233
Summer Session—Arts	96	53	149
Summer Session—Medicine	1	–	1
Summer Session—Law	3	–	3
Summer Session—Agriculture	19	2	21
Summer Session—Home Economics	1	11	12
Summer Session—Veterinary	1	–	1
Summer Session—Engineering	175	–	175
Summer Session—Architecture	20	2	22
State Summer School—Arts	1	3	4
State Summer School—Agriculture	23	13	36
State Summer School—Home Economics	–	27	27
State Summer School—Veterinary	1	–	1
State Summer School—Architecture	1	–	1
Summer Session Law 1928—Arts	4	1	5
Summer Session Law 1928—Law	35	1	36
Summer Session Law 1928—Summer Session	2	–	2
Summer Session Law 1928—S. S. Law 1929	6	–	6
Summer Session Law 1929—Arts	9	–	9
Summer Session Law 1929—Law	21	1	22
Summer Session Law 1929—Graduate	–	1	1
Totals	904	464	1368

STUDENTS

The accompanying tables show the attendance for 1928–29, gives the number of students who have received instruction this year, including those in the 1928 Summer Session, in the 1928 State Summer Schools, in the 1928–29 Winter Courses in Agriculture, and the Summer Sessions in Law, but excluding duplicates, as 7482.

The accompanying table shows the attendance in each course since the opening of the University in 1868.

MATRICULATES

The following table shows that 2628 students have registered during the present year for the first time. The table also shows the method of admission. Students entering for the first time in the Summer Session and in the State Summer Schools are not considered as matriculates, but for convenience are listed in this table.

Graduates	221	Coll. Ent. Board Exams	29
Advanced standing	339	Medical (N. Y. C.)	46
Regents' credentials	578	Summer Session (1928)	729
School certificates	380	State Summer School (1928)	247
By examination	1	Summer Grad. (Per. Dir.)	4
As special students	24	Summer Law School	30
Total			2628

The small number entering by some of the methods mentioned above is due to the fact that two or more methods have been combined in a single case, the student, however, being listed in the group to which the major portion of his entrance belongs.

The following table shows the age in years and months of students at graduation for the ten year classes 1870–1925. It also shows the age separately for men and women. The Master's degrees are listed in one group and the Doctor's in another. The age at graduation of the youngest member of the graduating class and also that of the oldest member are given as well as the median age.

	Arts		Law		Medicine		Veterinary		Agriculture		Architecture		Civil Eng.		Mech. Eng.		Masters		Doctors		War Al.
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Class of 1870:																					
Minimum...	20– 4																26– 0				
Median.....	21–11																26– 0				
Maximum...	28– 5																26– 0				
Class of 1880:																					
Minimum...	18–11	19– 8							20– 6		19– 6		21– 0		23– 0		29– 3			22– 9	
Medina.....	22– 3	22– 2							21– 0		21– 5		22– 8		25– 1		29– 3			22– 9	
Maximum...	32– 8	24– 6							30– 0		23– 5		25– 9		28– 1		29– 3			22– 9	
Class of 1890:																					
Minimum...	19– 9	20–11	20– 1						20– 1		20– 7		19– 2		20– 2		20– 7	23– 5	28–10		
Median.....	22– 4	23– 0	22– 6						23– 2		23– 9		22–11		23– 1		24– 1	26–10	29– 6		
Maximum...	32– 6	27– 1	36– 2						25– 3		26–11		27–10		36– 1		29–10	31– 5	30– 3		
Class of 1900:																					
Minimum...	20– 0	20– 6	19– 6		21– 3	23– 6	22– 6		22– 7		21– 2		20–11		19– 9		22– 0	21–11	24– 0	30– 8	
Median.....	22–10	22–11	22– 5		24– 5	26– 9	25– 1		23–10		23– 0		23–10		22–10		24– 9	36– 6	30–10	31– 3	
Maximum...	36– 3	33– 8	34– 4		38– 4	38– 2	34– 9		28– 2		28– 1		28– 8		30– 0		40– 2	42– 0	41– 0	33– 0	
Class of 1905:																					
Minimum...	19–11	20– 6	20– 9	22– 1	20– 9	21–10	20–11		20– 9	27– 6	22– 9		20– 5		20– 4		21– 4	23–11	23– 5	37– 5	
Median.....	22– 6	22–10	23– 5	22– 1	23– 6	29–10	25– 5		23–10	27– 6	24– 4		24– 1		23– 3		25– 1	29– 3	31– 2	37– 5	
Maximum...	33–10	52– 5	29– 3	22– 1	38–10	38– 4	33– 0		38– 3	27– 6	30– 0		33– 8		32– 6		36– 1	32– 5	40– 4	37– 5	
Class of 1910:																					
Minimum...	20– 1	20– 8	20–10	22– 6	21– 3	27– 6	21– 0	24– 8	20– 9	21–10	22– 3		19– 9		20– 2		21– 7	29– 8	23– 0	26– 5	
Median.....	22– 5	22– 6	22–10	22– 6	23– 9	30– 8	23– 7	24– 8	24– 0	23– 0	23– 0		23– 5		22–11		26– 1	29– 8	28–10	29– 6	
Maximum...	34– 7	45– 2	26– 9	22– 6	33– 9	39–11	47– 0	24– 8	34–10	24– 2	36– 4		31–11		32– 7		32– 4	29– 8	38– 7	36– 1	
Class of 1915:																					
Minimum...	20– 1	20– 0	20– 5		23– 6	26– 4	20– 7		20– 2	20– 8	20– 4		20– 7		20– 1		24– 6	24– 7	25– 6	28– 2	
Median.....	22– 6	22– 5	22–10		25–10	27– 3	23– 0		23– 7	23– 4	23– 9		22– 8		22–10		27–10	28– 5	29– 4		
Maximum...	34– 4	36– 5	32– 3		31– 9	40– 5	43– 5		40– 8	40– 5	36– 0		32–11		27–10		42– 1	42– 0	42– 1	34– 0	
Class of 1920:																					
Minimum...	16– 9	20– 6	20–11	21– 4	23– 9	23– 9	21– 7		19– 9	20– 3	21–11		19– 8	34– 7	20– 8		21– 4	20– 9	24– 9	25– 8	19–10
Median.....	22– 6	22– 3	22–11		26– 8	26– 6	25– 0		23–10	22–10	24– 8		23– 6		23– 5		24–10	26– 0	30–11	30– 7	24– 9
Maximum...	33– 2	44– 5	29–11	26–10	30–10	44– 1	32– 0		43–11	38– 2	31– 0		33– 6	34– 7	28– 2		51– 6	47– 6	49– 9	45– 4	69– 9
Class of 1925:																					
Minimum...	19– 4	19– 7	21– 7		23– 1	25– 2	20– 9	22– 9	20– 3	19– 1	23– 1	20– 7	20– 4		20– 4	23– 7	20– 1	19– 8	23– 4	30– 4	
Median.....	22– 0	22– 0	23– 8		25– 9	27– 4	24– 0		23– 3	22– 7	24–11	22– 8	22– 8		22–10		26– 8	24–11	28– 8	40– 2	
Maximum...	29– 7	30– 1	33– 1		32–11	34– 2	38– 2	25– 7	45– 3	35– 2	31– 6	26– 1	28– 3		34– 6	23– 7	43– 6	43–10	47– 4	52– 2	

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

The Registrar has charge of all credentials presented by applicants coming from other institutions. This system has given uniformity of action on similar certificates when the applicants enter different colleges at this University.

In the following list should be included properly a number of cases of special students who, coming from other colleges, would have been eligible for admission to advanced standing. Such students, however, preferred to be admitted as specials. Some later changed to a regular course but are not included in the tables.

The number of students admitted to advanced standing as candidates for the first degree during the past forty-three years, is, as nearly as may be ascertained, as follows. The former courses in Chemistry, Pharmacy, Medical Preparatory, and Optional have been omitted from the table but the numbers have been retained in the totals.

Year	Arts	Phil.	Let.	Sci.	Agr.	Arch.	Civil Eng.	Mech. Eng.	For-estry	Law*	Vet.	Med.	No. of Cases
1886–87	2	8	1	4	1	4	6	18		..	..	..	50
1887–88	6	4	1	1	..	..	11	10	..	..	..	..	37
1888–89	5	..	6	5	2	2	12	21	..	..	..	..	64
1889–90	4	5	6	3	2	1	2	25	.	..	..	..	50
1890–91	8	8	2	4	1	..	14	28		.	..	..	69
1891–92	7	9	2	5	2	2	10	52	.	..	..	..	90
1892–93	6	6	1	8	..	6	11	44	.	.		..	87
1893–94	5	6	5	8	..	6	6	56	..		..	..	98
1894–95	4	2	3	3	2	3	6	44	..	.	..	..	71
1895–96	5	11	4	7	3	3	9	33	..	..	..	..	85
1896–97	10	4	2	4	3	3	11	42	..	12	5	..	100
1897–98	11	6	..	7	9	2	15	41	..	15	1	..	108
1898–99	27	6	1	7	4	3	16	56	1	6	2	..	134
1899–00	28	..	..	1	5	3	25	64	1	7	4	..	138
1900–01	37	..	..	..	4	6	6	64	3	10	2	2	134
1901–02	38	..	..	..	6	2	29	92	5	7	..	2	184
1902–03	33	..	.	.	8	2	24	105	9	12	1	..	194
1903–04	31	..	..	.	9	5	39	112	..	9	1	1	207
1904–05	29	.	..	..	9	5	44	101	..	3	..	..	191
1905–06	39	..	.	..	14	8	36	89	..	1	..	..	187
1906–07	40	..	..	..	19	5	55	86	..	15	..	..	220
1907–08	43	..	..	..	22	10	60	79	..	11	..	..	225
1908–09	37	..	..	..	21	10	53	71	..	5	1	5	203
1909–10	47	..	..	..	41	7	30	88	..	9	..	..	222
1910–11	41	..	..	..	44	8	44	47	..	11	..	..	195
1911–12	36	..	..	..	52	6	38	57	..	7	4	..	200

Year	Arts	Home Econ.	Agri.	Arch.	Engineering	Law	Vet.	Med.	No. of Cases
1912–13	57	..	76	8	83	7	1	..	232
1913–14	58	..	76	5	78	7	..	..	224
1914–15	70	..	87	5	93	7	1	6	269
1915–16	85	..	94	7	75	9	4	8	282
1916–17	76	..	84	9	73	9	2	10	263
1917–18	64	..	45	3	50	12	2	4	180
1918–19	87	..	52	3	79	11	6	6	244
1919–20	126	..	102	8	146	9	2	8	401
1920–21	75	..	68	13	134	5	5	3	303
1921–22	95	..	62	6	100	13	2	1	279
1922–23	61	..	74	14	75	7	6	5	242
1923–24	59	..	82	12	72	21	1	5	252
1924–25	60	..	90	13	62	41	3	6	275
1925–26	60	38	43	13	61	16	3	6	240
1926–27	70	34	36	6	68	13	5	7	239
1927–28	57	26	40	7	61	26	8	10	235
1928–29	123	18	29	9	62	31	7	50	339

*No data prior to 1896–97.

Of the 339 admitted in 1928–29, 159 registered as freshmen, 111 as sophomores, 46 as juniors, 23 as seniors.

During the past forty-three years there have been admitted from 580 other institutions of collegiate rank, 8,012 students. The distribution in general of these students can be seen by reference to the table on page xciii of the Report for the year 1907–08.

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Registrar has had charge of the credentials of those entering by school certificate, by Regents' credentials and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the past sixteen years the number of applicants admitted by school certificate, by Regents' credentials, and by examinations, has been as follows:

	'13–14	'14–15	'15–16	'16–17	'17–18	'18–19	'19–20	'20–21	'21–22	'22–23	'23–24	'24–25	'25–26	'26–27	'27–28	'28–29
Cert.	587	647	683	605	524	648	636	646	600	527	595	483	470	438	405	380
Regents	476	494	520	544	476	649	575	543	527	596	605	570	603	631	570	578
Examin.	6	9	28	9	7	4	12	7	8	4	2	9	11	6	6	1
C.E.E.B.	14	27	7	13	20	22	31	23	23	33	34	21	29	28	28	29
Total	1083	1177	1238	1171	1027	1323	1254	1219	1158	1160	1236	1083	1113	1103	1009	988

The inserted table gives the number admitted to graduation. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

DAVID F. HOY,
Registrar.

APPENDIX XVI

REPORT OF THE LIBRARIAN

To the President of the University:

SIR: I herewith submit the annual report of the work done by the several divisions of the University Library during the past year, and I also take this occasion to submit a general summary of the growth of the library and the means that have been used to increase its usefulness during the period when it has been under my supervision.

During the thirteen years, from July 1, 1915 to date, the library has grown in size from 455,129 volumes to 804,239, an increase of 349,110. During this period particular attention has been paid to the acquisition of important publications of learned societies and sets of periodicals in the fields of science, literature, art, history, etc., in order to broaden and deepen the foundations for all time. The period subsequent to the war proved to be a propitious time for acquiring these materials, although the number of competitors in the purchasing field and the shortage of library funds operated to prevent getting all the sets wanted.

While the records of book accessions have been but little modified from those used in 1915, for reasons that need not be given here, periodical accession records have been completely made over. Although no satisfactory follow up method for periodical accessions is as yet known to the library world, some advance in this respect has been made by the loose card system used, and arrearages are less frequent than formerly. A thorough revision of the book accession records that would give a more accurate showing of continuations and book funds available would strengthen this branch of the library work. The separation of the book funds from the expense funds, which were formerly lumped together, and the monthly statement secured from the Auditor's Office were the first steps taken toward clarifying these records.

CLASSIFICATION DIVISION

The next step after accessions in making library materials available for use is classification. In 1891 when the books were moved to the present building and some system of numbering was necessary to keep them in order on the shelves, no scholarly or really adequate system of classification adapted to the needs of a large university library had been worked out. A modified British Museum system of notation was adopted as the best means of keeping materials in order, although it could not in any sense be said to classify the books. The inherent weaknesses of this system have been more and more in evidence with the growth of the library.

The labor of re-marking the accumulated materials according to a later and better system was too great to undertake all at once. The need for working space and funds for additional workers was so great in 1915 that it did not seem feasible to undertake it. Therefore, additions to the groups of books already in the library were continued with the same system of marking, because it was feared that confusion and therefore some interference with the use of books might result from the use of two systems in the same group. All new groups, however, and some smaller units already in the library, have been classified by the system devised by the Library of Congress which is the best system of classification known to the library world. The open shelf and reference books were the first to be thus classified. Then the cyclopedias and general periodical literature were dealt with and brought together in a more convenient location for ready consultation.

The most important step in adopting a new system of classification has been made in connection with the new distinct collections added during this period. The Agricultural College Library books, when removed from the general library were classified by the Library of Congress method. The division of Spanish literature, the Scaife Collection of American History, the Van Cleef Medical Library, and the Gray Memorial Library have all been classified by the Library of Congress system, with certain modifications. The large Wason Collection, dealing with China and the Chinese, the Loewy Collection of Free Masonry, and the Mathematical books deposited in White Hall, having been brought together within recent years, have all been classified by the Library of Congress system. Arrangements are under way to reclassify the Barnes Library of Religious Literature to bring it in line with the modern system.

SERVICE TO READERS

If reports from serious students, who have used other university libraries, are accepted, Cornell has for a long period enjoyed the reputation of being one of the best libraries to use, not alone because of its contents but because of the quality of its service. One of the first steps, on occupying the present building, was to put into operation a new system of records to account for the whereabouts of all books not in their assigned places on the shelves. It has never been the policy to report a book as out when not found in its assigned place, as is done in some libraries. This record shows when a book is in a department library, in a seminary room, at the bindery, etc., as well as when drawn out by some reader. It also shows how long it has been off the shelf, how often the book has been drawn, and by whom, thus the life history forms a part of the library record, and this is of use when the question of replacement arises. I am convinced that this has done much to satisfy the reader whenever a book could not be produced. Another service that the library has sought to render is in giving instruction as to how to get at the materials in a great library. This has been done by courses of lectures and personal instruction in the reading room, which is the introductory laboratory of the library. Users soon learn that librarians are ready to help them but not to do their work for them, and thus they become independent workers. The plan and arrangement of the reading rooms in the library do not facilitate the best service to readers. The lack of proper supervision, which is well-nigh impossible, the freedom of exit and ingress at several points all render the accurate location of books at all times very difficult, if not impossible.

STACKS

The growth of the library and the crowded condition of the book stacks has made the work in this division increasingly difficult. The standard here is every book in its place when not in use, and this standard has been increasingly difficult to maintain. Two wholly new floors and several hundred book presses have been placed around the floors of the old stacks in the effort to keep books in order when on the shelves. The old book shelves, the original equipment, are of the fixed type, that is, they cannot be adjusted to fit the size of the books without the service of a mechanic, which practically makes it impossible to use the space to the best advantage. The new shelving is all of the easily adjusted type which greatly facilitates the shelf problem.

Already we are obliged to stack books on floors and tables in some congested parts of the book stacks and this will become more and more necessary as the library grows which condition interferes with service to readers. This congested condition has been a feature in allowing much material to be deposited in other buildings on the campus therefore increasing the decentralization of the library which necessitates research workers going to other buildings for some necessary materials, a condition not conducive to the greatest facility for work and certainly not to the most favorable opinion of the workers as regards library service.

CATALOGUING

Probably the one most important feature of library work in a library too large to be consulted on open shelves is the work of cataloguing. No one not trained in this field has any conception of the details and intricacies involved in making books available by means of a catalogue. This work calls for the highest technical training combined with judgment and vision. It goes without saying that when the card catalogue of the University Library was started the standards set and the methods followed were of the simpler type and called for little more than the intelligence of the average reader to record. But the science of bibliography, having developed beyond the ken of untrained persons, has made a large part of the early cataloguing obsolete. One of the large tasks during the past decade has been to bring the University Library catalogue up to the present-day standard. Like the classification problem and for very much the same reasons this change could not be made in a wholesale manner. The best methods have been put into use for all new work and the old work has been eliminated or replaced gradually as the time and working force permitted. In this way eventually the whole card catalogue will be modernized and made to conform to the best standard of library science. The securing of a complete file of the printed cards of the Library of Congress and Harvard University Library have greatly aided in this revision and has greatly reduced the expense of the work found necessary to further this project.

SPECIAL COLLECTIONS

The best practice in modern library science is characterized by the terms special libraries, and such libraries are multiplying rapidly in all branches of business and manufacturing activities. The application of this principle to large libraries is more and more coming into use.

Through the generosity and vision of men like President White, Mr. Willard Fiske, Mr. Wason and others, Cornell has made the beginning of what bids fair to be the solution of the best way to make a university library most useful. The idea is to break up into groups the material available and to place in custody of each group someone who is not only trained in bibliographical science but who also has a knowledge of the subject matter. At present Cornell University has a curator for the Icelandic literature, the Italian literature, the White Historical Library, and the Wason Collection dealing with the Chinese. Other special groups with a custodian in charge might well be anticipated when a new building will make it possible to so arrange the materials as to emphasize the character of the groups. One of the most pressing and important needs in this direction is to bring together the rare and valuable books in which Cornell University Library is so rich. The vault where these are now kept, so far as

there is room, is over full and is in no way a proper place for consultation. Throughout the book stacks are many books already too rare to be left on open shelves and many more that in time will become so. These should be brought together in a room where they may be consulted under proper supervision and protected for the future use of library users.

DEPARTMENT LIBRARIES

For many years now, owing to the crowded condition of the central library and the lack of a well designed plan at the beginning, Cornell University Library has been drifting into what in the light of the experience of other large university libraries may prove at some future time, if not already, a serious problem.

There have grown up outside of the main library increasingly large collections of books drawn from the general library that are not available for use during the full library hours and are not, generally speaking, under the supervision of those trained in library methods. In so far as these collections consist of current books limited to one field that can be duplicated at a small cost, the situation is not serious. When, however, books of interest to more than one field of investigation, too rare or too expensive to allow of duplication, the problem becomes serious. Practically all research work must be done in the general library and when proper provision is made for such work, should be done there. The great sets of academy and learned societies publications, the long runs of periodical literature in practically every field of human investigation form the foundation material of such work and should not go out of the library except for special reasons, when it is possible to do the work within the building. But in addition to such material there are many books of interest to more than one field of work that are needed for research and great is the inconvenience when a worker in the general library seeking such a book finds that it is transferred more or less permanently to some department collection. This situation may occur in almost every field of investigation, although some, notably law materials, are so distinct that there is less danger than in other groups. Certainly the fields of science and arts are so intricately involved that interference is likely to occur often.

The need for current books in connection with work going on in the various laboratories is recognized and such books may well be duplicated for such work when their character is such as to be needed in more than one place, but a single copy of a book much in demand by more than one group of investigators should be kept in the general library rather than be deposited in a departmental group.

Because of the crowded condition of the general library it has been a relief to place on deposit in other buildings materials that should be found in the main library, but plans for a new building should anticipate and provide for the return of all such materials, except such as are constantly used elsewhere, and much of this should be duplicated for general use.

WORK FOR THE YEAR 1928–29

During the year from July 1, 1928 to July 1, 1929, the Library has accessioned and made ready for use 13,117 volumes for the general collection and 3,072 volumes for the special collections, omitting the Cornell University theses that are deposited in the library by the action of the University Faculty.

Of these additions 7,710 came as gifts and exchanges, and 5,407 were purchased from the various university and library book funds. Among the gifts are included 343 volumes that came with the Wordsworth Collection, given by Victor Emanuel, '19, and 1,552 volumes of the Loewy Collection. Among the Loewy books accessioned were the volumes dealing with Byron, Shelley, Swinburne, and Whitman. Also the large group of books dealing with music and musicians, and a beginning has been made on the works dealing with the drama and theatrical stage.

The most important single work added during the year is the Collection Conciliorum, edited by Mansé, in 54 volumes, a work of supreme importance in ecclesiastical history and long wanted by the library. Otherwise the additions are of a general character.

The following were added to the newspaper and periodical materials:

R. Accademia delle scienze fisiche e matemateche di Napoli. Rendiconti, 1–63, 1862–1923.
Société de l'histoire de la France. Annuaire historique 1837–63.
Société de l'histoire de la France. Annuaire bulletin, 1880–99.
Theological review, 1–16, 1864–79.
Museum of foreign literature and science. 26 v. 1826–42.
Texas Folklore Society. Publications 2–7, 1923–28.
Oesterreichische Moorzeitschrift, 1–15, 1900–15.
Société des naturalistes Luxembourgeois. Bulletins-mensuels. N.S. 1–21, 1907–27.
Freie Vereinigung für Pflanzengeographie. Jahresbericht 1903–21.
Verein für Naturwissenschaft zu Braunschweig. Jahresbericht 1–17, 1880–1913.
Archives botanique du Nord de la France. 1–3, 1881–87.
Rio news. 19 vols. 1879–1900.

The following tables give the total volumes in the several groups that constitute the university libraries:

BOOKS, BOUND PAMPHLETS, MAPS, MSS., ETC.

General Library, exclusive of the following		535,938
Anthon Collection, purchased 1868	6,770	
Bopp Collection, purchased 1868	2,014	
Sparks Collection, purchased 1872	5,717	
White Historical Library, gift 1891	23,177	
Zarncke Collection, gift 1883	13,000	
British Patents, gift 1868	3,108	
		53,786
Fiske Dante Collection, gift 1893	9,867	
Fiske Petrarch Collection, gift 1905	4,247	
Fiske Icelandic Collection, gift 1905	18,029	
Wason Collection, gift 1918	12,179	
Volumes of C. U. Theses Deposited	8,335	
Philological Seminary Collection	1,097	
Philosophical Seminary Collection	966	
German Seminary Collection	769	
French Seminary Collection	24	
Latin Seminary Collection	325	
American History Collection	620	
		56,457
Manuscripts	837	
		837
Maps in Cornell University Library	1,094	
C. U. Plans deposited	200	
U. S. Coast Survey charts	950	
U. S. Geological Survey Topog. sheets	3,505	
U. S. Geological Survey Atlases	215	
British Geological Survey Maps	600	
		6,564
Gen. Law Library, gifts and purchases	52,537	
Moak Law Library, gift 1893	12,500	
Flower Veterinary Library, gift	8,184	
Barnes Hall Library, gift	3,027	
Goldwin Smith Hall Library	3,229	
Van Cleef Memorial Library	2,754	
Comstock Memorial Library	1,185	
Kuichling Collection, gift 1919	2,139	

Architectural College Library	1,781	
Economics Laboratory Collection	340	
Entomological Laboratory Collection	2,403	
Prudence Risley Hall Collection	841	
Gray Memorial Library	628	
Chemistry Library, Special	127	
		91,675
N. Y. S. College of Agriculture Library	55,167	
N. Y. S. Forest College Library	1,181	
N. Y. S. Plant Pathology Collection	424	
Physics Library	1,166	
		57,938
		804,239

PERIODICAL DIVISION

This division reports as follows:

Periodicals currently received		
By subscription	1,288	
By gift and exchange	1,147	
		2,435
Volumes of periodicals bound		3,454
Volumes of periodicals kept on open shelves		3,547
Current periodicals on open shelves		739
Volumes issued for temporary use		537

Although the present room gives more space and greater facilities for using this material than the former location, the increased use of periodicals and newspapers demand more room not alone for more bound sets and current numbers to be kept on the open shelves but also for a more logical arrangement in order to make this material more easily found. The records of receipts of the subscription sets are checked every month to detect arrears before the demand for use actually arises, which is the first effort to keep the sets up to date.

CLASSIFICATION AND SHELF DIVISIONS

The work of these divisions has gone on as usual. The current receipts have been classified in accordance with the old and new systems as they came in, showing a total of 13,253 volumes of new work and 303 volumes re-classified.

The annual inventory of the book shelves in the library stacks has gone on systematically during the year, revealing 300 volumes found misplaced on the shelves and 897 volumes that could not be accounted for at the time of checking.

The effort to keep books in their numbered order has necessitated the shifting of 353 presses of books, and the addition of new presses. This need for continuous shifting adds greatly to the work of these divisions but it must go on increasingly from year to year so long as there is lack of room in any division of the library. How long before the system will break down completely with its own weight is not easy to predict. The Supervisor reports that there is scarcely room for another year's accessions.

CATALOGUE DIVISION

In addition to the current receipts from purchase, gift, and exchanges in the general library, the catalogue division has received and incorporated in the main catalogue the cards from the Agricultural College library dealing with sets of periodicals in order that readers may have the information that certain periodicals in addition to those in the general library may be found in the Agricultural College library, and also to avoid all danger of duplication. Cards for additions

to the Agricultural College library, other than periodicals, are filed alphabetically by themselves for ready use, without increasing the size of the general catalogue which is in danger of becoming overcrowded before additional room for its enlargement can be had.

The added labor of making over the old cards now in the catalogue and bringing them up to a modern standard has been spoken of in the earlier part of this report. Suffice it to add that this work is going on daily in connection with the new work as it comes to the attention of the cataloguers and the results are shown in the following table:

Number of volumes and pamphlets catalogued	14,387
Number of maps catalogued	184
Number of manuscripts catalogued	22
Number of titles added to catalogue	7,564
Number of written cards added	12,157
Number of printed cards added	10,717
Number of cards added to L. C. Catalogue	47,090
Number of cards added to Harvard catalogue	1,920
Number of cards added to	5,840
Number of volumes added to cards	5,653
Number of volumes recatalogued	315
Number of cards corrected or dated	3,198

READERS DIVISION

The general library has been open for readers' use during the year 308 days. During the term from 8 a.m. until 10:30 p.m., six days in the week, and during vacation days from 9 a.m. until 5 p.m. except on holidays and Sundays when the library is closed.

There are 2,058 registered borrowers in the year's list, of which 1,079 are students. The plan of including a library guarantee in the general university deposit, as yet does not apply to all classes and no doubt prevents some from registering who otherwise would. The student library registration should show an increase when this plan applies to all classes in the university.

The following tables show the recorded use made of the library books:

RECORDED USE

Reading room	112,121
Seminary rooms	4,344
Laboratories and departments	3,645
Home use	44,049
Foreign loans	681
Borrowed from other libraries	186

BOOKS RESERVED IN LIBRARY BUILDING

Reference room	3,767
Reading room	6,207
Delivery desk	3,071
Periodicals	3,547
Greek seminary	1,721
French seminary	1,051
Economics seminary	1,095
Sage School Seminary	340
European History Seminary	1,254
American History Seminary	592
English Seminary	755
Cataloguing room reserve	136
Stacks, locked presses	2,537
Vault	1,059

One of the discouraging features of issuing library books for home use is the large number of borrowers who fail to periodically return or account for books taken from the library. At the close of the year there were 144 university officers in this list.

Another interference with the rights of library users and the usefulness of the library is found in the large number of books both from the open shelves and book stacks that cannot be accounted for. Some of this is doubtless due to the displacement of books on the shelves which is remedied by the constant reading of the shelves for inventory purposes. But much is also due to carrying books out of the library without making a record, either willfully or carelessly. The faulty arrangement of the library whereby no check can be made on those passing in and out lends itself to this annoying condition. Every library that is used must expect to have some books that can not be found when looked for but the success of a library in supplying materials depends on keeping as small as possible the number of missing titles.

SPECIAL COLLECTIONS

The accessions to the White Historical Collection are merged with the general accessions so it is not possible to report the number of volumes added to this special group by purchase from the Sage fund, the Warfare of Science fund, and the gifts made to the collection.

The Wason Collection on China and the Chinese has added 648 volumes during the year and the total as shown by the table given in the accessions report is 12,179 volumes. The titles of special value added to this collection are as follows:

Chavannes, Édouard. Mission archéologique dans la Chine septentrionale. 1913. 4 v.

École Française d'Extrême-Orient, Hanoi, Indo-China. Bulletin. v. 1–27. 1901–27.

Licent, Émile. Hoang ho—Pai ho. Comptes rendus de dix années (1914–1923) de séjour et d'exploration dans le bassin du Fleuve Jaune, du Pai ho et des autres tributaires du golfe du Pei Tcheu ly. 1924. 4 v. and atlas.

Ssu-ma Ch'ien. Les mémoires historiques de Se-ma Ts'ien, tr. et annotatés par Édouard Chavannes. 1895–1905. 5 v.

Stein, Sir Aurel. Innermost Asia. 1928. 4 v.

The additions to the Icelandic Collection during the year have been smaller than usual due in part to the failure of the agent depended upon to supply materials in time to be included in the year's accessions. As a consequence about 200 volumes have been recorded up to the departure of the Curator of the collection.

DEPARTMENT AND LABORATORY COLLECTIONS

The books deposited in outlying collections and drawn out by individuals for laboratory use have been inspected and inventoried during the year, at the Christmas recess and at the close of the university year.

An increasingly large number of volumes thus removed from the library cannot be found. Some of these probably are in the hands of users who have taken them without leaving a record, others are gone never to be returned. Again I must call attention to the importance of having in charge of these collections persons with library training not alone for assistance to users but with a knowledge of the importance and methods of checking the books frequently and recording all books removed and returned and the daily use of these books. This condition also emphasizes the danger of allowing rare and expensive books to be withdrawn and deposited outside of the general library.

In closing this, my last annual report, I have taken the opportunity to call attention to the difficulties under which the library has been working during the past years. I have not spoken of the lack of additional book funds because under the conditions outlined it did not seem possible to shelve more than could

be bought from the book funds already available. Any increase in library space will demand a large increase to the book funds. I have also refrained from mentioning the budget allowance for salaries. The library staff was not included in the general increase of salaries following the war and although there have been some additions to this budget during the past few years it is still below where it should be to compare favorably with workers in other divisions of the university and workers in other libraries. The standard of requirement for library workers is as high as in other fields and it is only due to the loyalty and devotion of the library staff that we have been able to retain them during these years at a lower compensation than the quality of their work justifies.

WILLARD AUSTEN,
Librarian.

APPENDIX XVII

PUBLICATIONS 1927–'28 AND 1928–'29

The University Library keeps alphabetically arranged the publications of University Officers, so far as received at the Library, and for this purpose copies are solicited. Omissions in the following list are due to incomplete information.

Cornell University. Official publication. v. 19, 1927–28; v. 20, 1928–29.

Cornell University. Agricultural Experiment Station. Bulletin. 459–475, 477, 480, 1927–29. Ithaca, N. Y.

—— Memoir. No. 101–124. 1927–29. Ithaca, N. Y.

Cornell University. College of Architecture. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix XI. 1927, and v. 20, No. 4. Appendix XI. 1928.*

Cornell University. College of Arts and Sciences. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix III. 1927, and v. 20, No. 4. Appendix III. 1928.*

Cornell University. College of Engineering. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix XII. 1927, and v. 20, No. 4. Appendix XII. 1928.*

Cornell University. Law School. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix IV. 1927, and v. 20, No. 4. Appendix IV. 1928.*

Cornell University. Dean of Women. Report. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix XIV. 1927, and v. 20, No. 4. Appendix XIV. 1928.*

Cornell University. Graduate School. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix II. 1927, and v. 20, No. 4. Appendix II. 1928.*

Cornell University. Library. Report of the Librarian. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix XVI. 1927, and v. 20, No. 4. Appendix XVI. 1928.*

—— Publications (by Cornell University and its officers). 1926–27. *Cornell University. Official publication. v. 19, No. 4. Appendix XVIII. 1927.*

Cornell University. Medical College. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix V. 1927, and v. 20, No. 4. Appendix V. 1928.*

Cornell University. Medical College, Ithaca Division. Report of the Secretary. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix VI. 1927, and v. 20, No. 4. Appendix VI. 1928.*

Cornell University. President. Annual report. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. 1927, and v. 20, No. 4. 1928.*

Cornell University. Registrar. Report. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix XV. 1927, and v. 20, No. 4. Appendix XV. 1928.*

Cornell University. Summer Session. Report of the Administrative Board. 1926 and 1927. *Cornell University. Official Publication. v. 19, No. 4. Appendix XIII. 1927, and v. 20, No. 4. Appendix XIII. 1928.*

Cornell University. University Faculty. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix I. 1927, and v. 20, No. 4. Appendix I. 1928.*

New York State College of Agriculture. Report of the Dean for the year 1926–27 and 1927–28. *Cornell University. Official Publication. v. 19, No. 4. Appendix VIII. 1927, and v. 20, No. 4. Appendix VIII. 1928.*

New York State College of Home Economics. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official Publication. v. 19, No. 4. Appendix X. 1927, and v. 20, No. 4. Appendix X. 1928.*

New York State Veterinary College. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official publication. v. 19, No. 4. Appendix VII. 1927, and v. 20, No. 4. Appendix VII. 1928.*

New York State Agricultural Experiment Station. Report of the Dean. 1926–27 and 1927–28. *Cornell University. Official Publication. v. 19, No. 4. Appendix IX. 1927, and v. 20, No. 4. Appendix IX. 1928.*

New York State Agricultural Experiment Station. Geneva, N. Y. Bulletin, 545–556, 558–569. 1927–29.

—— Circular. 94–113. 1927–29.

—— Technical bulletin. 128–149. 1927–29.

Columns. v. 3–4. Oct. 1927–June, 1929. Ithaca, N. Y.

Cornell alumni news. v. 30–31. Ithaca, N. Y. 1927–29.

Cornell civil engineer; monthly publication of the Association of Civil Engineers at Cornell University. v. 36–37. October 1927–June 1929. Ithaca. N. Y.

Cornell countryman. v. 25–26. October 1927–June 1929. Ithaca, N. Y.

Cornell daily sun. Ithaca, N. Y. 1927–28 and 1928–29.

Cornell extension bulletin. No. 158–182. Ithaca, N. Y. 1927–29.

Cornell junior extension bulletin. No. 25–34. Ithaca, N. Y. 1927–29.

Cornell law quarterly; published by the faculty and students of the Cornell Law School. v. 13–14. December 1927 –June 1929. Ithaca, N. Y.

Cornell rural school leaflet. v. 21–22. September 1927–March 1929. Ithaca, N. Y.

Cornell University medical bulletin. v. 17–18. New York City. 1927–29.
Cornell veterinarian. v. 18–19. Ithaca, N. Y. 1928–29.
Cornellian. v. 60–61. Ithaca, N. Y. 1928–29.
Cornellian Council quarterly. v. 13–14. Ithaca, N. Y. 1927–29.
Farm economics. Nos. 47–60. 1927–29. Ithaca, N. Y.
Journal of physical chemistry. v. 32–33. 1928–29. Ithaca, N. Y.
Philosophical review. v. 37–38. 1928–29. New York, Longmans, Green and Co.
Sibley journal of engineering. v. 42–43. 1928–29. Ithaca, N. Y.
Widow. v. 36–37. Ithaca, N. Y. 1927–29.

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—— The passing of a great teacher: Louis Agassiz Fuertes. *Bird-lore, v. 29: 372, 1927.*
—— The autobiography of a Mother Grouse. *Bird-lore, v. 29: 443, 1927.*
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—— Diseases of the ruffed grouse. *American game, v. 17: 29, 1928.*
—— Dame oriole's story. *Bird-lore, v. 30: 214, 1928.*
—— Mother Goldfinch tells her story. *Bird-lore, v. 30: 287, 1928.*
—— The strange mother—being the autobiography of a female cowbird. *Bird-lore, v. 30: 352, 1928.*
—— Downy woodpecker's story. *Bird-lore, v. 30: 415. 1928.*
—— Chickadee. *Bird-lore, v. 31: 69, 1929.*
—— The friendly chippy. *Bird-lore, v. 31: 138. 1929.*
—— Recent developments in grouse studies. *American game, v. 18: 43, 1929.*
—— Kingfisher's rebuke. *Bird-lore v. 31:214, 1929.*

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